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=> d his

     (FILE 'HOME' ENTERED AT 09:25:38 ON 09 FEB 2004)
               SET COST OFF

     FILE 'REGISTRY' ENTERED AT 09:26:33 ON 09 FEB 2004
               E METHYLENE CHLORIDE/CN
L1             1 S E3
L2            15 S 189943-94-0 OR 153439-97-5 OR 146447-66-7 OR 142227-56-3 OR 1
L3           448 S (C2H4O3 OR C4H4O4) AND (C3H6O3 OR C6H8O4)
L4            26 S L3 AND 2/NC
L5            11 S L4 NOT L2
L6             4 S 10326-41-7 OR 79-33-4 OR 50-21-5  OR 26100-51-6
L7            10 S 22098-76-6 OR 13076-19-2 OR 13076-17-0 OR 4511-42-6 OR 95-96-
L8             5 S 26009-03-0 OR 502-97-6 OR 79-14-1 OR 26202-08-4 OR 26124-68-5
               E (C5H6O4)N/MF
L9            13 S E3

     FILE 'HCAPLUS' ENTERED AT 09:42:24 ON 09 FEB 2004
L10        23379 S L1
L11        13139 S METHYLENE CHLORIDE OR METHYLENECHLORIDE
L12           19 S METHANECHLORIDE OR METHANE CHLORIDE
L13        19407 S DICHLOROMETHANE OR (DICHLORO OR DI CHLORO)()METHANE OR AEROTH
L14        37830 S L10-L13
L15         4318 S L2
L16        57214 S L6,L7
L17       136893 S LACTIC ACID OR LACTATE OR (POLYLACTIC OR POLY LACTIC)()ACID O
L18        10124 S L8
L19        18332 S GLYCOLIC ACID OR GLYCOLATE OR (POLYGLYCOLIC OR POLY GLYCOLIC)
L20         7048 S L16,L17 AND L18,L19
L21          274 S L15 AND L14
L22          186 S L20 AND L14
L23          318 S L21,L22
L24         2273 S (POLYLACTIDE OR POLY(L)LACTIDE) AND (POLYGLYCOLIDE OR POLY(L)
L25         8801 S (POLYLACTIDE OR POLY(L)LACTIDE OR L16,L17) AND (POLYGLYCOLIDE
L26          283 S L14 AND L24,L25
L27          323 S L23,L26
L28        10266 S (?LACTIC? OR ?LACTIDE? OR ?LACTATE? OR L16 OR L17) AND (?GLYL
L29          318 S L28 AND L14
L30          329 S L27,L29
L31            5 S L30 AND (ENDCAP? OR END CAP? OR UNCAP?)
L32           97 S L30 AND CONTROL?(L)RELEAS?
L33           82 S L30 AND (PY<=1995 OR PRY<=1995 OR AY<=1995)
L34            1 S L33 AND L31
L35           18 S L32 AND L33
L36           19 S L34,L35
               E VANHAMONT J/AU
L37            3 S E4,E5
               E VAN HAMONT J/AU
L38           25 S E3-E8
               E REID R/AU
L39           92 S E3,E15-E17
               E REID ROBERT/AU
L40           76 S E1,E3,E16-E20
               E JACOB E/AU
L41           81 S E3-E11
L42           12 S E18,E19
               E JEYANTHI R/AU
L43           22 S E3,E4
               E BOEDEKER E/AU
L44           65 S E3,E4,E6,E7
               E MCQUEEN C/AU
L45           22 S E3,E5,E10,E11
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                E JARBOE D/AU
L46           8 S E5,E6,E7
                E CASSELS F/AU
L47          45 S E3-E9
                E BROWN W/AU
L48        1836 S E3-E70
                E BROWN WIL/AU
L49           5 S E12-E16
L50           1 S E22
L51         835 S BROWN WILLIAM?/AU
                E THIES C/AU
L52         108 S E3-E5,E11
                E TICE T/AU
L53          80 S E3,E4,E6-E9
                E ROBERTS F/AU
L54          55 S E3,E8,E9
L55          11 S E44-E47,E29
L56           1 S E55
L57           1 S E67
L58           1 S E83
                E FRIDEN P/AU
L59          62 S E3-E10
                E SETTERSTROM J/AU
L60          30 S E3-E6
                E SETTERSTROEM J/AU
L61           4 S L30 AND L37-L60
L62          29 S L33 AND ?ENCAPSUL?
                E DRUG DELIVERY/CT
L63          49 S L33 AND L18,L19,L22
L64           4 S L33 AND E27-E31
L65           0 S L33 AND E39,E43
L66           0 S L33 AND E49,E53,E55,E58
L67           1 S L33 AND E61,E64,E65,E70,E71
L68           0 S L33 AND E83,E84
L69           0 S L33 AND E89
L70           1 S L33 AND E97,E107,E108
L71           1 S L33 AND E112,E113,E115,E116
L72           0 S L33 AND E123,E128
L73           0 S L33 AND E136,E137,E139,E140
L74           0 S L33 AND E148,E150
L75           1 S L33 AND E162
L76           1 S L33 AND E182,E187,E188
L77           0 S L33 AND E195,E196,E199,E200,E201,E203
L78           0 S L33 AND E209,E211,E212
                E PHARMACEUTICAL DOSAGE FORM/CT
L79           0 S L33 AND E11,E12,E18,E21
L80           9 S L33 AND E26,E27,E36
L81           1 S L33 AND E40,E46,E47
L82           0 S L33 AND E51,E53,E56,E59
L83           1 S L33 AND E62,E63,E68,E69
L84           0 S L33 AND E81
L85           0 S L33 AND E83,E87,E96
L86           5 S L33 AND E105,E106
L87           9 S L33 AND E110,E111,E113,E114
L88           0 S L33 AND E121,E131,E132
L89           0 S L33 AND E134,E135,E136,E144
L90           1 S L33 AND E146
L91           4 S L33 AND E158
L92           0 S L33 AND E179
L93           9 S L33 AND E184,E185,E192
L94           0 S L33 AND E193,E196,E197,E198,E200
L95           0 S L33 AND E206,E208,E209
L96          26 S L67-L95
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L97          30 S L36,L96
L98         220 S CFA()(1 OR I)
L99           0 S L33 AND L98
L100        135 S (COLONIZ? OR COLONIS?)()FACTOR()ANTIGEN?()(I OR 1)
L101          0 S L100 AND L33
L102          1 S COLI AND L33
L103          1 S (ESCHER? OR "E")()COLI AND L33
L104          1 S L102,L103 AND L97
L105          7 S L33 AND (VACCIN? OR ADJUVANT?)
L106          3 S L97 AND L105
L107          6 S L64,L104,L106
L108          4 S L105 NOT L107
L109         10 S L107,L108
L110         24 S L97 NOT L109
L111          1 S L110 AND (VACCIN? OR ADJUVANT? OR IMMUNIZ? OR IMMUNIS?)
L112         11 S L109,L111
L113         23 S L110 NOT L112

     FILE 'HCAPLUS' ENTERED AT 10:41:32 ON 09 FEB 2004
L114         11 S L112 AND L10-L113
L115         23 S L113 AND L10-L114

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 10:43:18 ON 09 FEB 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 9 Feb 2004  VOL 140 ISS 7
FILE LAST UPDATED: 8 Feb 2004  (20040208/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> d l114 all hitstr tot

L114 ANSWER 1 OF 11  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   1999:566792  HCAPLUS
DN   131:175064
ED   Entered STN:  09 Sep 1999
TI   Release-controlled hormone microsphere injection and
     its preparation
IN   Zhang, Wenchuan; Cheng, Lingmei; Zheng, Zhaohui; Xue, Qing
PA   Chengdu Institute of Organic Chemistry, Chinese Academy of Sciences, Peop.
     Rep. China
SO   Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.
     CODEN: CNXXEV
DT   Patent
LA   Chinese
IC   ICM  A61K009-56
     ICS  A61J003-00
```

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 2

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1127634	A	19960731	CN 1995-111307	19950406 <--
PRAI	CN 1995-111307		19950406 <--		

AB The title injection comprises **release-controlled** hormone microspheres and antimicrobial solns. The microsphere **encapsulation** materials are bio-medical materials selected from e.g. biodegradable **polylactic acid**, **polyglycolic acid**, ethylene glycol-**glycolic acid** copolymer, polyamino acids, gelatine, and gum arabic. The hormones are estradiol valerate, estriol, testosterone propionate and T4 or T3. The weight of the **release-controlled** hormone microspheres is 5.0-50.0 mg, the **releasing** time in vitro is 30-90 days and the antimicrobial solns. contain 0.1-5% silicone oil II and 0.1-5% emulsifying agent in 0.9% normal saline; HLB of the emulsifying agent is 14-15.5. The average mol. weight of biodegradable materials is 3.0-10.0 x 104 and rate of the **microencapsulated** hormone is 2-20% of the weight of the microspheres. The outer surface of the microspheres is coated with beeswax. The organic phase for **encapsulating** microspheres are **methylene chloride**, chloroform, Et acetate, dioxane, Et ether, methylene and chloride-vegetable oil or chloroform-acetone; the emulsifying agent adopted by organic phase has HLB = 4.5-6 ; the aqueous phase contains PVA, PVP or PMANa aqueous solution The solvents for dissolving beeswax are chloroform, Et ether and vegetable oil. Hormone microspheres are sterilized by the ethylene oxide method at 30-45° for 48 h. The microspheres are suspended in antimicrobial solns. to form injections for i.m. administration.

ST **release controlled** hormone microsphere injection

IT **Drug delivery systems**
(**controlled-release**; **release-controlled** hormone microsphere injection and its preparation)

IT **Drug delivery systems**
(injections, **controlled-release** microsphere; **release-controlled** hormone microsphere injection and its preparation)

IT **Drug delivery systems**
(injections, i.m., **controlled-release** microsphere; **release-controlled** hormone microsphere injection and its preparation)

IT **Drug delivery systems**
(microspheres, in **controlled-release** injections; **release-controlled** hormone microsphere injection and its preparation)

IT Amino acids, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polymers; **release-controlled** hormone microsphere injection and its preparation)

IT Beeswax
Emulsifying agents
(**release-controlled** hormone microsphere injection and its preparation)

IT Gelatins, biological studies
Hormones, animal, biological studies
Polysiloxanes, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**release-controlled** hormone microsphere injection

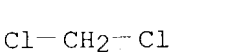
and its preparation)

IT Fats and Glyceridic oils, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(vegetable; **release-controlled** hormone microsphere injection and its preparation)

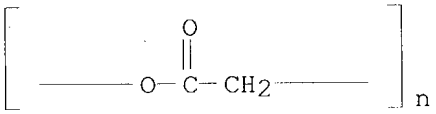
IT 50-27-1, Estriol 51-48-9, T4, biological studies 55-06-1, Sodium Triiodothyronine 57-85-2, Testosterone propionate 60-29-7, Ethyl ether, biological studies 67-64-1, 2-Propanone, biological studies 67-66-3, Chloroform, biological studies **75-09-2**, biological studies 75-21-8, Oxirane, biological studies 123-91-1, 1,4-Dioxane, biological studies 141-78-6, Acetic acid ethyl ester, biological studies 979-32-8, Estradiol valerate 2465-56-7, Methylene 6893-02-3, Triiodothyronine 9000-01-5, Gum arabic 9002-89-5, Poly (vinyl alcohol) 9003-39-8, Polyvinylpyrrolidone **26009-03-0, Polyglycolic acid 26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 34346-01-5**, Hydroxyacetic acid-**lactic acid** copolymer 54193-36-1, Sodium polymethacrylate 87430-88-4 122933-99-7
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**release-controlled** hormone microsphere injection and its preparation)

IT **75-09-2**, biological studies **26009-03-0, Polyglycolic acid 26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 34346-01-5**, Hydroxyacetic acid-**lactic acid** copolymer
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**release-controlled** hormone microsphere injection and its preparation)

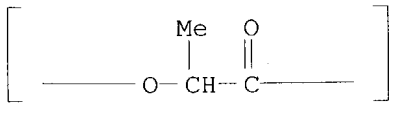
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



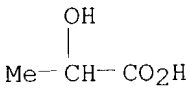
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

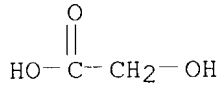
CRN 50-21-5
CMF C3 H6 O3



RN 26124-68-5 HCAPLUS
CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

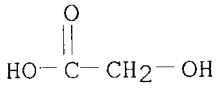
CRN 79-14-1
CMF C2 H4 O3



RN 34346-01-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

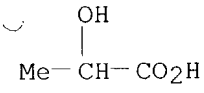
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 50-21-5
CMF C3 H6 O3



L114 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:120882 HCAPLUS
Correction of: 1995:802867
DN 130:129819
Correction of: 123:237620
ED Entered STN: 24 Feb 1999
TI The preparation, characterization and pre-clinical evaluation of an orally administered HIV-1 **vaccine**, consisting of a branched peptide immunogen entrapped in **controlled release**

microparticles
AU O'Hagan, D. T.; McGee, J. P.; Boyle, R.; Gumaer, D.; Li, X.-M.; Potts, B.; Wang, C. Y.; Koff, W. C.
CS United Biomedical, Inc., Hauppauge, NY, 11788, USA
SO Journal of Controlled Release (**1995**), 36(1-2), 75-84
CODEN: JCREEC; ISSN: 0168-3659
PB Elsevier
DT Journal
LA English
CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 15
AB A **microencapsulated vaccine** was prepared, containing a branched peptide immunogen (200M), representing a portion of the principal neutralizing determinant of HIV-1, entrapped in **poly**(**lactide**-co-**glycolide**) microparticles. Following extensive in vitro characterization of the microparticles, which included assessments of particle size and size distributions, microparticle surface structure, antigen loading level and efficiency of entrapment, moisture content, the levels of residual solvent, the in vitro release rate, an assessment of antigen integrity, the product bioburden and stability during storage, the microparticles were assessed in vivo. The initial assessments undertaken, involved studies in different animal species to determine the safety and pyrogenicity of the **vaccine** and also the toxicity following oral administration. Once the microparticles had been shown to be safe, pyrogen free and non-toxic, they were assessed for their ability to induce serum IgG and neutralizing antibody responses in guinea pigs. Following oral immunization alone, and combined oral and s.c. immunization, the microparticles were shown to induce high levels of both serum IgG and neutralizing antibodies against HIV. Pending review by the U.S. Food and Drugs Administration, the microparticle based oral **vaccine** against HIV-1 will be assessed in clin. trials in seroneg. human volunteers.
ST **controlled release** microparticle oral **vaccine**
HIV1; branched peptide antigen microparticle oral **vaccine**
IT Dissolution rate
(antigen; preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)
IT Peptides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(branched, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)
IT Animal virus
(human immunodeficiency 1, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)
IT Polyesters, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hydroxycarboxylic acid-based, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)
IT **Encapsulation**
(micro-, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)
IT **Drug delivery systems**
(**microparticles, controlled-release,**

preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT Antibodies
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(neutralizing, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT **Vaccines**
(oral, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT Particle size
Pyrogens
Safety
Toxicity
(preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT Antigens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT AIDS (disease)
(preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** in relation to AIDS)

IT **26780-50-7, Poly**(DL-**lactide**-co-**glycolide**)
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

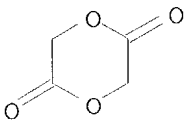
IT **75-09-2, Dichloromethane**, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT **26780-50-7, Poly**(DL-**lactide**-co-**glycolide**)
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

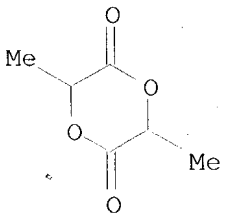
CM 1

CRN 502-97-6
CMF C4 H4 O4

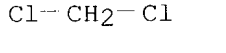


CM 2

CRN 95-96-5
CMF C6 H8 O4



IT **75-09-2, Dichloromethane**, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



L114 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:78937 HCAPLUS
DN 130:100654
ED Entered STN: 08 Feb 1999
TI Preparation of polypeptide-type protein drug microspheres
IN Zhu, Kangjie; Jiang, Hongliang
PA Zhejiang Univ., Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
IC ICM A61K009-56
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1122690	A	19960522	CN 1995-107205	19950609 <--
	CN 1069827	B	20010822		
PRAI	CN 1995-107205		19950609 <--		

AB Polypeptide-type protein drug microspheres are prepared by agitating an internal phase [glycerin-water and drugs] at 1000-4000 rpm and emulsifying a middle oil phase [**polylactic acid** or poly(**lactide**-co- **diglycolide**) in acetone-**dichloromethane** (or chloroform)mixture] to form W/O emulsion, agitating W/O emulsion at 400-1200 rpm and emulsifying in external water phase [PVA water solution with hydrolysis degree > 90% and concentration 0.5-10%.],

vaporizing the solvent of the middle oil phase in W/O emulsion at 5-40°, microsphere hardening, centrifugal-separating, washing and vacuum drying. The polypeptide-type protein drug is hormone, enzyme, growth factor, Ig, polypeptide **vaccine**, cyclosporin, cytochrome, interferon or lymphokine.

ST polypeptide protein drug microsphere

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(co-, **lactide-diglycolide**; preparation of polypeptide-type protein drug microspheres)

IT Proteins, general, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drugs; preparation of polypeptide-type protein drug microspheres)

IT Drug delivery systems
(microspheres; preparation of polypeptide-type protein drug microspheres)

IT **Vaccines**
(polypeptide; preparation of polypeptide-type protein drug microspheres)

IT Cytochromes
Enzymes, biological studies
Growth factors, animal
Hormones, animal, biological studies
Immunoglobulins
Interferons
Lymphokines
Myoglobins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of polypeptide-type protein drug microspheres)

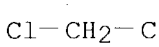
IT Albumins, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(serum, bovine; preparation of polypeptide-type protein drug microspheres)

IT 9002-61-3, Chorionic gonadotropin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(human; preparation of polypeptide-type protein drug microspheres)

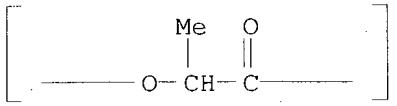
IT 56-81-5, Glycerin, biological studies 67-64-1, Acetone, biological studies 67-66-3, Chloroform, biological studies **75-09-2, Dichloromethane**, biological studies 9002-89-5, PVA 9003-20-7, PVA **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6, Polylactic acid** 79217-60-0, Cyclosporin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of polypeptide-type protein drug microspheres)

IT **75-09-2, Dichloromethane**, biological studies
26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]
26100-51-6, Polylactic acid
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of polypeptide-type protein drug microspheres)

RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



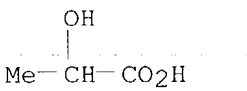
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 50-21-5
CMF C3 H6 O3



L114 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:527193 HCAPLUS
DN 129:166193
ED Entered STN: 21 Aug 1998
TI Therapeutic treatment and prevention of infections with a bioactive material **encapsulated** within a biodegradable-biocompatible polymeric matrix
IN **Setterstrom, Jean A.; Van Hamont, John E.; Reid, Robert H.; Jacob, Elliot; Jeyanthi, Ramasubbu; Boedeker, Edgar C.; McQueen, Charles E.; Tice, Thomas R.; Roberts, F. Donald; Friden, Phil**
PA United States Dept. of the Army, USA; Van Hamont, John E.; et al.
SO PCT Int. Appl., 363 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K009-52
ICS A61K047-30
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1, 2, 15
FAN.CNT 15

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9832427	A1	19980730	WO 1998-US1556	19980127
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6309669	B1	20011030	US 1997-789734	19970127 <--
	AU 9863175	A1	19980818	AU 1998-63175	19980127
PRAI	US 1997-789734	A	19970127		
	US 1984-590308	B1	19840316 <--		
	US 1992-867301	A2	19920410 <--		
	US 1995-446148	A2	19950522 <--		
	US 1995-446149	B2	19950522 <--		
	US 1996-590973	B2	19960124		
	WO 1998-US1556	W	19980127		

AB Novel burst-free, sustained release biocompatible and biodegradable microcapsules are disclosed which can be programmed to release their active core for variable durations ranging from 1-100 days in an aqueous physiol. environment. The microcapsules are comprised of a core of polypeptide or other biol. active agent **encapsulated** in a matrix of **poly(lactide/glycolide)** copolymer, which may contain a pharmaceutically acceptable **adjuvant**, as a blend

of upcapped free carboxyl end group and **end-capped** forms ranging in ratios from 100/0 to 1/99.

ST infection microcapsule sustained release peptide copolymer

IT Hepatitis
(B, chronic; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Hepatitis
(C, chronic; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Trypanosoma cruzi
(Chagas' disease from; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Immunoglobulins
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(G, ampicillin-specific; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Nervous system
(Huntington's chorea; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Antitumor agents
(Kaposi's sarcoma; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Sperm
(acrosome, proteinase of; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Diagnosis
(agents; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Ragweed (Ambrosia)
(allergy; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Ameba
(amebiasis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Antibiotics
(aminoglycoside; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Absidia ramosa
Actinobacillus equuli
Actinobacillus seminis
Arcanobacterium pyogenes
Aspergillus fumigatus
Babesia caballi
Brucella melitensis
Campylobacter fetus
Campylobacter fetus intestinalis
Candida albicans
Candida tropicalis
Chlamydia psittaci
Clostridium tetani

Equid herpesvirus 1
Equine arteritis virus
Escherichia coli
Gardnerella vaginalis
Human herpesvirus 1
Human herpesvirus 2
Leptospira interrogans pomona
Listeria monocytogenes
Mycobacterium tuberculosis
Mycoplasma bovigenitalium
Mycoplasma hominis
Neisseria gonorrhoeae
Pneumocystis carinii
Pseudomonas aeruginosa
Rhodococcus equi
Salmonella abortivoequina
Salmonella abortusovis
Streptococcus group B
Toxoplasma gondii
Treponema pallidum
Trichomonas vaginalis
Tritrichomonas foetus
Trypanosoma equiperdum
(antigens of; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Mycobacterium
(antimycobacterial agents; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Mouth
(aphthous ulcer; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Drugs
(appetite stimulants; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Heart, disease
(arrhythmia; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Blood vessel
(artificial, infections surrounding; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Dermatitis
(atopic; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Babesia
(babesiasis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Skin, neoplasm
(basal cell carcinoma, inhibitors; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Antitumor agents
Skin, neoplasm
(basal cell carcinoma; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Natural products, pharmaceutical
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(belladonna; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Prostate gland
(benign hyperplasia; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Polymers, biological studies
RL: DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biodegradable; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Nervous system
(central, disease; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Polymers, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(co-; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Intestine, disease
(colitis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Antigens
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(colony factor; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Intestine, neoplasm
(colorectal, inhibitors; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Antitumor agents
Intestine, neoplasm
(colorectal; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Thrombosis
(coronary arterial; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Artery, disease
(coronary, thrombosis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Vasodilators
(coronary; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Tapeworm (Cestoda)
(cysticercosis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Bladder
(cystitis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Mental disorder
(depression; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Eye, disease
(diabetic retinopathy; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Polyesters, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(dilactone-based; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Digestive tract
(drugs for; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Brain, disease
(edema, peritumoral; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Drug delivery systems
(emulsions; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT B cell (lymphocyte)
T cell (lymphocyte)
(epitopes of; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Alkaloids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(ergot; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Amino acids, biological studies
Fats and Glyceridic oils, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(essential; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Fasciola
(fascioliasis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Filaria
(filariasis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Anthelmintics
(filaricides; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Digestive tract
(gastroenteritis, virus causing; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Intestine, disease
(giardiasis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Transplant and Transplantation
(graft-vs.-host reaction; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Calymmatobacterium granulomatis
(granuloma inguinale from, antigens of; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Antigens
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hepatitis B surface; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Liver, neoplasm
(hepatoma, inhibitors; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Antitumor agents
Liver, neoplasm
(hepatoma; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Human herpesvirus 2
(herpes genitalis from; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Human herpesvirus 3
(herpes zoster from, antigens of; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Parvovirus
Retroviridae
(human; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Globulins, biological studies
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hyperimmune; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Sexual behavior
(impotence; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Eye, disease
Mouth
Skin, disease
(infection; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Prosthetic materials and Prosthetics
(infections surrounding; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible

polymeric matrix)
IT Drug delivery systems
(inhalants; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Fertility
Ovary, neoplasm
Pancreas, neoplasm
(inhibitors; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Drug delivery systems
(injections; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Diabetes mellitus
(insulin-dependent; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Leishmania
(leishmaniasis from, visceral; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Antitumor agents
(lung small-cell carcinoma; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Antibiotics
(macrolide; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Antitumor agents
(mammary gland; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Antitumor agents
(melanoma; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Drug delivery systems
(microcapsules; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Drug delivery systems
(microspheres; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Drug delivery systems
(nasal; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Mammary gland
Prostate gland
(neoplasm, inhibitors; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Mammary gland
Prostate gland
(neoplasm; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)
IT Meningitis
(neoplastic; prevention of infections with bioactive material

encapsulated within biodegradable-biocompatible polymeric matrix)

IT Angiogenesis
(neovascularization, retinal; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Diabetes mellitus
(non-insulin-dependent; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Anti-inflammatory agents
(nonsteroidal; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Emulsions
(oil-in-water; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Drug delivery systems
(oral; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Nitrites
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(organic; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Antitumor agents
(ovary; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Antitumor agents
(pancreas; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Anxiety
(panic disorder; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Paragonimus
(paragonimiasis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Hormones, animal, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(peptide; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Periodontium
(periodontitis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Mental disorder
(phobia; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Adhesion, biological
(postsurgical; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric

matrix)
IT AIDS (disease)
Acinetobacter
Actinomycetales
Adenoviridae
Adrenoceptor agonists
Aerococcus
Aeromonas
Allergy inhibitors
Alzheimer's disease
Analgesics
Anesthetics
Angiogenesis
Angiogenesis inhibitors
Anthelmintics
Anti-infective agents
Anti-inflammatory agents
Antiarrhythmics
Antiarthritics
Antibacterial agents
Antibiotics
Anticholesteremic agents
Anticoagulants
Anticonvulsants
Antidepressants
Antidiabetic agents
Antidiarrheals
Antiemetics
Antihistamines
Antihypertensives
Antimalarials
Antimigraine agents
Antiparkinsonian agents
Antipyretics
Antirheumatic agents
Antiserums
Antitumor agents
Antitussives
Antiulcer agents
Antiviral agents
Appetite depressants
Arbovirus
Arcanobacterium haemolyticum
Arenavirus
Asthma
Bacillus (bacterium genus)
Biocompatibility
Blood substitutes
Bordetella
Borrelia
Bronchodilators
Brucella
Cachexia
Calymmatobacterium
Campylobacter
Cardiopulmonary bypass
Cardiotonics
Cardiovascular agents
Cholinergic agonists
Clostridium
Contraceptives
Coronavirus
Corynebacterium

Cryptosporidium parvum
Cystic fibrosis
Cytomegalovirus
Cytotoxic agents
Decongestants
Diagnosis
Diarrhea
Dissolution rate
Diuretics
Drug bioavailability
Drug dependence
Ebola virus
Echinococcus
Electrolytes, biological
Emulsifying agents
Enterobacteriaceae
Enterococcus
Enterovirus
Epitopes
Erysipelothrix
Expectorants
Filovirus
Flavobacterium
Freeze drying
Fungicides
Gardnerella
Gram-negative bacteria
Gram-positive bacteria (Firmicutes)
Haemophilus
Haemophilus ducreyi
Helicobacter
Hepatitis A virus
Hepatitis B virus
Hepatitis C virus
Human herpesvirus 3
Human herpesvirus 4
Human immunodeficiency virus
Human immunodeficiency virus 1
Human parainfluenza virus
Human poliovirus
Hypercholesterolemia
Hypnotics and Sedatives
Immunization
Immunomodulators
Immunostimulants
Infection
Influenza virus
Kidney, disease
Lactococcus
Legionella
Leptospira
Leuconostoc
Listeria
Measles virus
Melanoma
Micrococcus
Molluscum contagiosum virus
Moraxella
Multiple sclerosis
Mumps virus
Muscle relaxants
Narcotics
Neisseria

Nervous system agents
Nutrients
Opioid antagonists
Osteoarthritis
Osteomyelitis
Osteoporosis
Ovary, neoplasm
Pancreas, neoplasm
Papillomavirus
Parasiticides
Parkinson's disease
Pediococcus
Planococcus (bacterium)
Plesiomonas
Pneumonia
Poxviridae
Pseudomonas
Psoriasis
Psychotropics
Rabies virus
Reoviridae
Respiratory syncytial virus
Rheumatoid arthritis
Rhinovirus
Rhodococcus
Rotavirus
Rothia (bacterium)
Rubella virus
Salmonella typhi
Sexually transmitted diseases
Shigella boydii
Shigella dysenteriae
Shigella flexneri
Shigella sonnei
Spirillum
Staphylococcus
Streptobacillus
Streptococcus
Thrombosis
Tranquilizers
Treponema
Vaccines
Vasodilators
Vibrio
Vibrio cholerae
Wolinella succinogenes
Yersinia
(prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Alkaloids, biological studies
Antibodies
Antigens
Enzymes, biological studies
Estrogens
Glycolipids
Glycopeptides
Growth factors, animal
Lipopolysaccharides
Peptides, biological studies
Pheromones, animal
Progestogens
Prostaglandins
Proteins, general, biological studies

Steroids, biological studies
Sulfonamides
Tetracyclines
Vitamins
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Drug delivery systems
(prodrugs; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Proliferation inhibition
(proliferation inhibitors; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Antitumor agents
(prostate gland; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Pilus
(proteins; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Scalp
(psoriasis of; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Drug delivery systems
(rectal; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Artery, disease
(restenosis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Eye, disease
(retina, neovascularization; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Schistosoma
(schistosomiasis from; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Lung, neoplasm
(small-cell carcinoma, inhibitors; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Lung, neoplasm
(small-cell carcinoma; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Muscle relaxants
(spasmolytics; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Contraceptives
(spermicidal; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Brain, disease
(spongiform encephalopathy, agent causing; prevention of infections

with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Appetite
(stimulants; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Brain, disease
(stroke; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Strongylus
(strongylodiasis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT **Drug delivery systems**
(**sustained-release**, programmable; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Osteoporosis
(therapeutic agents; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Bile
(therapy with; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Drug delivery systems
(topical; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Muscle, disease
(torticollis, spasmodic; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Toxocara
(toxocariasis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Toxoplasma gondii
(toxoplasmosis from; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Drug delivery systems
(transdermal; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Head
(trauma; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Trichinella
(trichinellosis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Trichomonas
(trichomoniasis; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Drug delivery systems
(vaginal; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Emulsions

(water-in-oil; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT Lactams
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(β-, antibiotics; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT 9002-72-6, Somatotropin
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(deficiency; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT 9005-49-6, Heparin, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(neutralization of; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT 9001-60-9, **Lactate** dehydrogenase 37326-33-3, Hyaluronidase
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(of sperm; prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT 50-06-6, Phenobarbital, biological studies 50-12-4, Mephenytoin 50-18-0, Cyclophosphamide 50-23-7, Hydrocortisone 50-24-8, Prednisolone 50-28-2, 17β-Estradiol, biological studies 50-33-9, Phenylbutazone, biological studies 50-52-2, Thioridazine 50-55-5, Reserpine 50-78-2, Aspirin 51-55-8, Atropine, biological studies 52-24-4, Thiotepa 52-76-6, Lynestrenol 53-03-2, Prednisone 53-16-7, Estrone, biological studies 53-86-1, Indomethacin 54-11-5, Nicotine 55-48-1, Atropine sulfate 55-63-0, Nitroglycerin 55-86-7, Nitrogen mustard 56-53-1, Diethyl stilbestrol 56-75-7, Chloramphenicol 57-27-2, Morphine, biological studies 57-33-0, Sodium pentobarbital 57-42-1, Meperidine 57-53-4, Meprobamate 57-63-6, Ethinyl estradiol 57-85-2, Testosterone propionate 57-92-1, Streptomycin a, biological studies 58-08-2, Caffeine, biological studies 58-14-0, Pyrimethamine 58-22-0 58-25-3, Chlordiazepoxide 58-39-9, Perphenazine 58-73-1, Diphenhydramine 59-01-8, Kanamycin a 59-05-2, Methotrexate 59-92-7, L-Dopa, biological studies 61-33-6, Penicillin g, biological studies 67-20-9, Nitrofurantoin 68-22-4, Norethisterone 68-23-5, Norethynodrel 69-09-0, Chlorpromazine hydrochloride 69-53-4, Ampicillin 69-72-7D, Salicylic acid, derivs. 71-58-9, Medroxyprogesterone acetate 72-33-3, Mestranol 76-57-3, Codeine 79-57-2, Oxytetracycline 79-64-1, Dimethisterone 91-81-6, Tripelennamine 103-90-2, Acetaminophen 113-15-5, Ergotamine 114-07-8, Erythromycin 114-49-8, Hyoscine hydrobromide 121-54-0 122-09-8, Phentermine 125-29-1, Dihydrocodeinone 125-71-3, Dextromethorphan 127-48-0, Trimethadione 128-62-1, Noscapine 145-94-8, Chlorindanol 148-82-3, Melphalan 155-41-9, Methscopolamine bromide 288-32-4D, Imidazole, derivs. 297-76-7, Ethynodiol diacetate 302-22-7, Chlormadinone acetate 305-03-3, Chlorambucil 309-43-3, Sodium secobarbital 315-30-0, Allopurinol 434-03-7, Ethisterone 439-14-5, Diazepam 443-48-1, Metronidazole 469-62-5 471-34-1, Calcium carbonate, biological studies 497-19-8, Sodium carbonate, biological studies 523-87-5, Dimenhydrinate 546-93-0, Magnesium carbonate 578-66-5D, 8-Aminoquinoline, derivs. 578-68-7D, 4-Aminoquinoline, derivs. 595-33-5, Megestrol acetate 738-70-5, Trimethoprim 846-50-4, Temazepam 1397-89-3, Amphotericin b 1397-94-0, Antimycin a 1403-66-3, Gentamicin 1404-26-8, Polymyxin b 1404-90-6, Vancomycin 1406-05-9D, Penicillin, derivs. 4696-76-8, Kanamycin b 5588-33-0, Mesoridazine 5633-18-1, Melengestrol

5786-21-0, Clozapine 5800-19-1, Metiapine 6533-00-2, Norgestrel 7447-40-7, Potassium chloride (KCl), biological studies 8063-07-8, Kanamycin 9000-83-3, Atpase 9000-92-4, Amylase 9001-62-1, Lipase 9001-63-2, Muramidase 9001-67-6, Neuraminidase 9001-78-9, Alkaline phosphatase 9001-99-4, Ribonuclease 9002-02-2, Succinic acid dehydrogenase 9002-07-7, Trypsin 9004-07-3, Chymotrypsin 9004-10-8, Insulin, biological studies 9025-82-5, Phosphodiesterase 9029-12-3, Glutamic acid dehydrogenase 9035-74-9, Glycogen phosphorylase 9046-27-9, γ-Glutamyltranspeptidase 9079-67-8 10118-90-8, Minocycline 11111-12-9, Cephalosporins 13292-46-1, Rifampin 14271-04-6 21645-51-2, Aluminum hydroxide, biological studies 22232-71-9, Mazindol 24730-10-7, Dihydroergocristine methanesulfonate 25447-66-9 **26780-50-7**, **Poly(lactide** co-**glycolide)** 26787-78-0, Amoxicillin 30516-87-1, Azt 32986-56-4, Tobramycin 35189-28-7, Norgestimate 37205-61-1, Proteinase inhibitor 37517-28-5, Amikacin 53678-77-6D, Muramyl dipeptide, derivs. 53994-73-3, Cefaclor 55268-75-2, Cefuroxime 61036-62-2, Teicoplanin 64221-86-9, Imipenem 80738-43-8, Lincosamide 81103-11-9, Clarithromycin 82419-36-1, Ofloxacin 85721-33-1, Ciprofloxacin
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT 9002-60-2, Adrenocorticotropin, biological studies 9007-12-9, Calcitonin 9034-40-6, Lhrh 62229-50-9, Epidermal growth factor 115966-68-2, Histatin 5 (human parotid saliva) 123781-17-9, Histatin 127716-52-3, Histatin 9 (human parotid saliva) 146553-69-7 174270-18-9, 5-25-Histatin 6 (human parotid saliva) 186138-55-6 186138-60-3 194017-97-5 211118-03-5
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT 9005-64-5, Tween 20 9005-65-6, Tween 80 9005-67-8, Tween 60 106392-12-5, Pluronic
RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT **75-09-2**, uses
RL: NUU (Other use, unclassified); USES (Uses)
(prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

IT 146553-70-0 146553-71-1 146553-72-2 146553-73-3 146553-74-4 146553-75-5 146553-76-6 146553-77-7 146553-78-8 146553-81-3 146553-82-4 146553-83-5 146553-85-7 146553-86-8 146553-87-9 146553-88-0 146553-89-1 146553-90-4 146553-91-5 146553-92-6 164583-46-4 164583-50-0 164583-51-1 211118-14-8 211118-17-1
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Jeyanthi; Proceedings International Symposium on Controlled Release of Bioactive Materials 1996, P351 HCAPLUS
(2) Oppenheim; US 5486503 A 1996 HCAPLUS
(3) Syntex U S AInc; EP 0052510 B2 1994 HCAPLUS
(4) Wang; J of Controlled Release 1991, V17, P23 HCAPLUS
(5) Yan; J of Controlled Release 1994, V32(3), P231 HCAPLUS
(6) Yeh; A Novel Emulsification-Solvent Extraction Technique for Production of

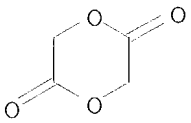
Protein Loaded Biodegradable Microparticles for Vaccine and Drug Delivery
1995, V33(3), P437 HCAPLUS

IT **26780-50-7, Poly(lactide co-glycolide)**
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

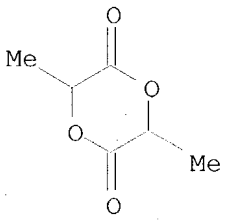
CM 1

CRN 502-97-6
CMF C4 H4 O4



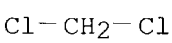
CM 2

CRN 95-96-5
CMF C6 H8 O4



IT **75-09-2**, uses
RL: NUU (Other use, unclassified); USES (Uses)
(prevention of infections with bioactive material **encapsulated** within biodegradable-biocompatible polymeric matrix)

RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



L114 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:594553 HCAPLUS
DN 127:253185
ED Entered STN: 17 Sep 1997
TI **Controlled-release** compositions of hydroxamic acids
IN Kamei, Shigeru; Kamijo, Akiko; Igari, Yasutaka; Kato, Kaneyoshi
PA Takeda Chemical Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
IC ICM A61K031-16
ICS A61K009-52; A61K031-165; A61K047-34; C08G063-06; C07C259-06
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09221420	A2	19970826	JP 1996-328582	19961209 <--
PRAI	JP 1995-327676		19951215 <--		

AB **Controlled-release** compns. comprise hydroxamic acids [e.g. 7-(4-methoxyphenyl)-7-(3-methyl-1,4-naphthoquinon-2-yl)heptanohydroxamic acid and 7,7-bis(4-methoxypheny)-7-cyanoheptanoxamic acid] or their salts and biodegradable carboxy group-containing polymers or their salts [such as **glycolic acid-lactic acid** copolymer iron salt]. **Glycolic acid-lactic acid** copolymer iron salt and 7-(4-methoxyphenyl)-7-(3-methyl-1,4-naphthoquinon-2-yl)heptanohydroxamic acid in **dichloromethane** were mixed with polyvinyl alc. and made into slow-**release** microcapsules.

ST **controlled release** compn hydroxamic acid

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biodegradable carboxy group-containing; **controlled-release** compns. of hydroxamic acids)

IT Dissolution rate
(**controlled-release** compns. of hydroxamic acids)

IT Hydroxamic acids
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**controlled-release** compns. of hydroxamic acids)

IT **Drug delivery systems**
(**controlled-release**; **controlled-release** compns. of hydroxamic acids)

IT Carboxylic acids, biological studies
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydroxy, polymers; **controlled-release** compns. of hydroxamic acids)

IT **Drug delivery systems**
(**microcapsules**; **controlled-release** compns. of hydroxamic acids)

IT **Drug delivery systems**
Drug delivery systems
(solns., injection, **slow-release**; **controlled-release** compns. of hydroxamic acids)

IT 5470-11-1, Hydroxylamine hydrochloride 103185-95-1 103186-54-5 186523-31-9 195879-12-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(**controlled-release** compns. of hydroxamic acids)

IT **34346-01-5P, Glycolic acid-lactic acid** copolymer 102012-38-4P 146845-98-9P 183965-50-6P 183965-51-7P 186502-53-4P 186522-67-8P 195879-09-5P 195879-10-8P 195879-11-9P 195879-13-1P 195879-14-2P 195879-15-3P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**controlled-release** compns. of hydroxamic acids)

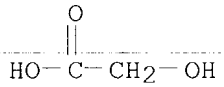
IT **34346-01-5P, Glycolic acid-lactic acid** copolymer
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**controlled-release** compns. of hydroxamic acids)

RN 34346-01-5 HCAPLUS

CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

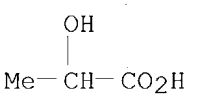
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 50-21-5
CMF C3 H6 O3



L114 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:761877 HCAPLUS
DN 126:37147
ED Entered STN: 01 Jan 1997
TI Implantable bioresorbable membrane and method for the preparation thereof
IN Yoon, Seok Joon; Yeo, Guw Dong; Kim, You Chan; Seo, Min Hyo; Pai, Chaul Min; Jung, Jong Pyoung; Lee, Seung Jin
PA Sam Yang Co. Ltd., S. Korea; Yoon, Seok Joon; Yeo, Guw Dong; Kim, You Chan; Seo, Min Hyo; Pai, Chaul Min; Jung, Jong Pyoung; Lee, Seung Jin
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61L027-00
ICS A61F002-02; A61K009-00
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9634634	A1	19961107	WO 1996-KR63	19960501 <--
	W: AT, CA, CH, CN, DE, DK, ES, GB, JP, KP, LU, NO, SE, US, VN				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2219995	AA	19961107	CA 1996-2219995	19960501 <--
	CN 1183051	A	19980527	CN 1996-193670	19960501 <--
	EP 857072	A1	19980812	EP 1996-912319	19960501 <--
	EP 857072	B1	20030115		
	R: DE, FR, GB, IT				
	JP 11504341	T2	19990420	JP 1996-533190	19960501 <--
PRAI	KR 1995-10672	A	19950501 <--		
	KR 1995-35025	A	19951012 <--		
	WO 1996-KR63	W	19960501		

AB An implantable bioresorbable membrane fo the separation and regeneration of tissues in a defect site, which comprises a woven or knitted fabric made of bioresorbable fibers and a process bioresorbable/biocompatible polymer film coated thereon. The implantable bioresorbable membrane of the present invention is produced by preparing a fabric as a support from

bioresorbable fibrous materials, coating the fabric with a solution containing a bioresorbable/biocompatible polymer and a pore forming agent, treating the coated fabric to generate pores, and embossing the coated fabric. A membrane was prepared from **polyglycolic acid** multifilament and poly(L-**lactic acid**) and polyd(L-**lactic acid-glycolic acid**) coating.

ST implant bioresorbable membrane polyester

IT Growth factors, animal
RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(epithelial cell growth factors; implantable bioresorbable membrane)

IT Anti-inflammatory agents
(implantable bioresorbable membrane)

IT Platelet-derived growth factors
RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(implantable bioresorbable membrane)

IT Polyester fibers, biological studies
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(implantable bioresorbable membrane)

IT Polyesters, biological studies
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(implantable bioresorbable membrane)

IT Growth factors, animal
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(implantable bioresorbable membrane)

IT **Drug delivery systems**
Drug delivery systems
(implants, controlled-release;
implantable bioresorbable membrane)

IT Prosthetic materials and Prosthetics
(implants; implantable bioresorbable membrane)

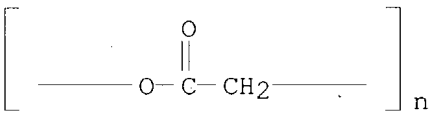
IT Proteins, specific or class
RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(morphogenetic; implantable bioresorbable membrane)

IT Medical goods
(sutures; implantable bioresorbable membrane)

IT **26009-03-0, Polyglycolic acid**
26124-68-5, Polyglycolic acid
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(fibers; implantable bioresorbable membrane)

IT 53-86-1, Indomethacin 57-48-7, D-Fructose, biological studies 60-54-8, Tetracycline 61-68-7, Mefenamic acid 69-79-4, Maltose 79-57-2, Oxytetracycline 144-55-8, Sodium bicarbonate, biological studies 443-48-1, Metronidazole 497-19-8, Sodium carbonate, biological studies 994-36-5, Sodium citrate 5104-49-4, Flurbiprofen 7447-40-7, Potassium chloride, biological studies 7647-14-5, Sodium chloride (NaCl), biological studies 9000-07-1, Carrageenan 9000-69-5, Pectin 9003-39-8, Pvp 9004-54-0, Dextran, biological studies 9005-32-7, Alginic acid 9014-63-5, Xylan 10043-52-4, Calcium chloride, biological studies 10118-90-8, Minocycline 12125-02-9, Ammonium chloride, biological studies 15687-27-1, Ibuprofen 22204-53-1, Naproxen 61912-98-9, Insulin-like growth factor
RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

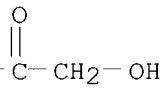
(implantable bioresorbable membrane)
IT 64-17-5, Ethanol, uses **75-09-2, Methylene chloride**, uses 141-78-6, Ethyl acetate, uses 872-50-4, N-Methylpyrrolidone, uses
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(implantable bioresorbable membrane)
IT 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone **26161-42-2** 26811-96-1, Poly(L-**lactic acid**) 29223-92-5, Poly-p-dioxanone 31621-87-1, Poly-p-dioxanone SRU 31852-84-3, Polytrimethylene carbonate 50862-75-4, Poly(oxycarbonyloxy-1,3-propanediyl) **54512-07-1, Glycolic acid** -L-**lactic acid** copolymer
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(implantable bioresorbable membrane)
IT **26009-03-0, Polyglycolic acid** **26124-68-5, Polyglycolic acid**
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(fibers; implantable bioresorbable membrane)
RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



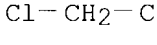
RN 26124-68-5 HCAPLUS
CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-14-1
CMF C2 H4 O3

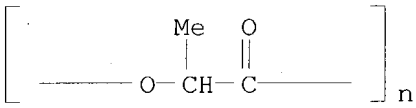


IT **75-09-2, Methylene chloride**, uses
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(implantable bioresorbable membrane)
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



IT **26161-42-2 54512-07-1, Glycolic acid** -L-**lactic acid** copolymer
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(implantable bioresorbable membrane)
RN 26161-42-2 HCAPLUS
CN Poly[oxy[(1S)-1-methyl-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)

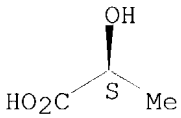


RN 54512-07-1 HCAPLUS
CN Propanoic acid, 2-hydroxy-, (2S)-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

CM 1

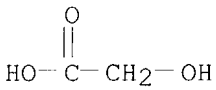
CRN 79-33-4
CMF C3 H6 O3

Absolute stereochemistry. Rotation (+).



CM 2

CRN 79-14-1
CMF C2 H4 O3



L114 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:999165 HCAPLUS
DN 124:66330
ED Entered STN: 22 Dec 1995
TI Enhancement of protective immune responses to Venezuelan equine encephalitis (VEE) virus with **microencapsulated vaccine**
AU Greenway, Terrence E.; Eldridge, John H.; Ludwig, George; Staas, Jay K.; Smith, Jonathan F.; Gilley, Richard M.; Michalek, Suzanne M.
CS Department of Microbiology, University of Alabama, Birmingham, AL, 35294, USA
SO Vaccine (**1995**), 13(15), 1411-20
CODEN: VACCDE; ISSN: 0264-410X
PB Elsevier
DT Journal
LA English
CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 15
AB Venezuelan equine encephalomyelitis (VEE) virus is a mosquito-borne arbovirus of major human health significance in the New World. Currently two forms of VEE virus are used for immunization of humans and horses, i.e. a live attenuated and a formalin-inactivated **vaccine**. Clin. evidence suggests that these **vaccines** are not fully

efficacious and may produce certain undesirable side-effects. In the present study, microspheres composed of biocompatible and biodegradable **poly** (DL-**lactide**-co-**glycolide**) (DL-PLG) were evaluated for their effectiveness as a delivery system of whole, inactivated VEE virus **vaccine** for the induction of protective immune responses. Mice receiving 50 μg VEE virus in microspheres composed of an equimolar ratio of DL-**lactide** and **glycolide** (50:50 DL-PLG) exhibited a primary circulating IgG antibody response which was approx. 32-times higher than the response induced with the same dose of **unencapsulated** (free) virus. A similar difference in responses was seen with antigen doses ranging from 3.1 to 50 μg. A rapid increase in antibody activity was seen after the secondary immunization (day 50). Formalin fixation of inactivated VEE virus was important for immunogenicity since the circulating anti-VEE virus antibody response induced with **microencapsulated** nonformalin-fixed virus **vaccine** was lower than that induced with **microencapsulated** formalin fixed virus **vaccine**. Furthermore, at low antigen concns., DL-PLG microsphere **vaccines** prepared with the solvent **methylene chloride** induced higher antibody responses than those prepared using Et acetate as the solvent. **Microencapsulated vaccine** also induced higher VEE virus neutralization titers than did free virus **vaccine** . Finally, the **microencapsulated** virus was more effective than the free virus in inducing immune responses protective against systemic challenge with virulent VEE virus. These results demonstrate that DL-PLG microspheres containing formalin-fixed, inactivated VEE virus were effective in augmenting circulating IgG antibody levels and neutralization titers to the VEE virus following systemic immunization and in affording enhanced protection against systemic challenge with virulent VEE virus. The effects of antigen form and the microsphere processing solvent on the immunogenicity of the **vaccine** are discussed.

ST immune response equine encephalitis virus **microencapsulation**

IT **Vaccines**
(immune responses to Venezuelan equine encephalitis virus with **microencapsulated vaccine**)

IT Immunoglobulins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(G, immune responses to Venezuelan equine encephalitis virus with **microencapsulated vaccine**)

IT Virus, animal
(Venezuelan equine encephalomyelitis, immune responses to Venezuelan equine encephalitis virus with **microencapsulated vaccine**)

IT Pharmaceutical dosage forms
(microspheres, immune responses to Venezuelan equine encephalitis virus with **microencapsulated vaccine**)

IT **26780-50-7**
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(immune responses to Venezuelan equine encephalitis virus with **microencapsulated vaccine**)

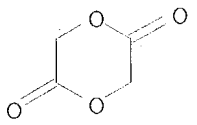
IT **26780-50-7**
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(immune responses to Venezuelan equine encephalitis virus with **microencapsulated vaccine**)

RN 26780-50-7 HCAPLUS

CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

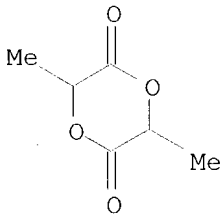
CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

CRN 95-96-5
CMF C6 H8 O4



L114 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:802867 HCAPLUS
DN 123:237620
ED Entered STN: 20 Sep 1995
TI The preparation, characterization and pre-clinical evaluation of an orally administered HIV-1 **vaccine**, consisting of a branched peptide immunogen entrapped in **controlled release** microparticles
AU O'Hagan, D. T.; P McGee, J.; Boyle, R.; Gumaer, D.; Li, X.-M.; Potts, B.; Wang, C. Y.; Koff, W. C.
CS United Biomedical, Inc., Hauppauge, NY, 11788, USA
SO Journal of Controlled Release (**1995**), 36(1-2), 75-84
CODEN: JCREEC; ISSN: 0168-3659
PB Elsevier
DT Journal
LA English
CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 15
AB A **microencapsulated vaccine** was prepared, containing a branched peptide immunogen (200M), representing a portion of the principal neutralizing determinant of HIV-1, entrapped in **poly**(**lactide**-co-**glycolide**) microparticles. Following extensive in vitro characterization of the microparticles, which included assessments of particle size and size distributions, microparticle surface structure, antigen loading level and efficiency of entrapment, moisture content, the levels of residual solvent, the in vitro release rate, an assessment of antigen integrity, the product bioburden and stability during storage, the microparticles were assessed in vivo. The initial assessments undertaken, involved studies in different animal species to determine the safety and pyrogenicity of the **vaccine** and also the toxicity following oral administration. Once the microparticles had been shown to be safe, pyrogen free and non-toxic, they were assessed for their ability to induce serum IgG and neutralizing antibody responses in guinea pigs. Following oral immunization alone, and combined oral and s.c.

immunization, the microparticles were shown to induce high levels of both serum IgG and neutralizing antibodies against HIV. Pending review by the U.S. Food and Drugs Administration, the microparticle based oral **vaccine** against HIV-1 will be assessed in clin. trials in seroneg. human volunteers.

ST **controlled release** microparticle oral **vaccine**
HIV1; branched peptide antigen microparticle oral **vaccine**

IT Solution rate
(antigen; preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT Particle size
Pyrogens
Safety
Toxicity
(preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT Antigens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT Acquired immune deficiency syndrome
(preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** in relation to AIDS)

IT Peptides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(branched, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT Virus, animal
(human immunodeficiency 1, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT Polyesters, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hydroxycarboxylic acid-based, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT **Encapsulation**
(micro-, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT **Pharmaceutical dosage forms**
(**microparticles, controlled-release,**
preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT Antibodies
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(neutralizing, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT **Vaccines**

(oral, preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT **26780-50-7, Poly**(DL-**lactide**-co-**glycolide**)
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

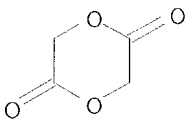
IT **75-09-2, Dichloromethane**, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

IT **26780-50-7, Poly**(DL-**lactide**-co-**glycolide**)
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

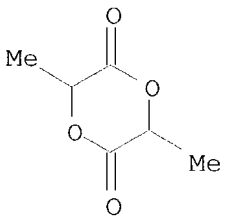
CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

CRN 95-96-5
CMF C6 H8 O4



IT **75-09-2, Dichloromethane**, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; preparation, characterization and pre-clin. evaluation of oral HIV-1 **vaccine** based on branched peptide immunogen entrapped in **controlled-release** microparticles)

RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)

$Cl-CH_2-Cl$

L114 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:640933 HCAPLUS
DN 123:17955
ED Entered STN: 28 Jun 1995
TI Method for preparing microspheres comprising a fluidized bed drying step
IN Cleland, Jeffrey L.; Jones, Andrew J.; Powell, Michael Frank
PA Genentech, Inc., USA
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K009-16
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9511009	A1	19950427	WO 1994-US11678	19941013 <--
	W: AU, BR, CA, JP				
	RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2172508	AA	19950427	CA 1994-2172508	19941013 <--
	AU 9480174	A1	19950508	AU 1994-80174	19941013 <--
	EP 724433	A1	19960807	EP 1994-931369	19941013 <--
	EP 724433	B1	19981230		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 09504026	T2	19970422	JP 1994-512076	19941013 <--
	AT 175110	E	19990115	AT 1994-931369	19941013 <--
	US 6080429	A	20000627	US 1997-966850	19971107 <--
PRAI	US 1993-142257	A	19931022 <--		
	US 1993-143313	A	19931025 <--		
	WO 1994-US11678	W	19941013 <--		
	US 1996-650364	B1	19960520		

AB A method for **encapsulating** an active agent in microspheres comprises (a) dissolving a polymer in an organic solvent, (b) adding active agent to produce an emulsion or suspension, (c) adding this mixture to an emulsification bath to produce microspheres, (d) hardening the microspheres, and (e) drying the microspheres in a fluidized bed. Thus, a buffered solution (154 mg/mL) of recombinant glycoprotein gp120 from HIV-1 strain MN was homogenized with a solution of DL-**lactide**/**glycolide** copolymer in CH2Cl2 (0.3 or 0.6 g/mL), and 10 mL of this emulsion was homogenized with 900 mL 10% **poly**(vinyl alc.) solution containing 1.5% CH2Cl2 to produce a water-in-oil-in-water emulsion, which was transferred to a hardening bath of filtered water for 1 h. The microspheres were concentrated, diafiltered, concentrated to dryness, and dried in a fluidized bed in a stream of N2. These microspheres showed a much smaller initial burst than microspheres prepared similarly but dried by lyophilization.

ST microsphere drug drying fluidized bed

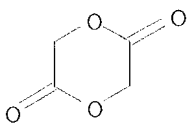
IT Freeze drying
Solvents
(method for preparing microspheres with fluidized bed drying step)

IT Antigens
Proteins, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(method for preparing microspheres with fluidized bed drying step)
IT Polyesters, biological studies
Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for preparing microspheres with fluidized bed drying step)
IT Immunostimulants
(**adjuvants**, method for preparing microspheres with fluidized bed drying step)
IT Drying
(fluidized-bed, method for preparing microspheres with fluidized bed drying step)
IT Sialoglycoproteins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gp120env, method for preparing microspheres with fluidized bed drying step)
IT Virus, animal
(human immunodeficiency 1, glycoprotein gp120 of; method for preparing microspheres with fluidized bed drying step)
IT Pharmaceutical dosage forms
(microspheres, method for preparing microspheres with fluidized bed drying step)
IT Drying
(vacuum, method for preparing microspheres with fluidized bed drying step)
IT 9002-72-6, Growth hormone
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(human; method for preparing microspheres with fluidized bed drying step)
IT 9002-89-5, Poly(vinyl alcohol) **26780-50-7**, DL-**Lactide/glycolide** copolymer 141256-04-4
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for preparing microspheres with fluidized bed drying step)
IT 67-64-1, Acetone, uses **75-09-2**, **Methylene chloride**, uses 100-51-6, Benzyl alcohol, uses 141-78-6, Ethyl acetate, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; method for preparing microspheres with fluidized bed drying step)
IT **26780-50-7**, DL-**Lactide/glycolide** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for preparing microspheres with fluidized bed drying step)
RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

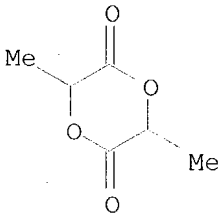
CRN 502-97-6
CMF C4 H4 O4



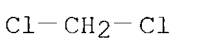
CM 2

CRN 95-96-5

CMF C6 H8 O4



IT **75-09-2, Methylene chloride,** uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; method for preparing microspheres with fluidized bed drying step)
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)

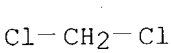


L114 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:316163 HCAPLUS
DN 122:89472
ED Entered STN: 28 Jan 1995
TI Preparation of microparticles and method of immunization
IN O'Hagan, Derek Thomas; McGee, John Paul; Davis, Stanley Stewart
PA USA
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM B01J013-02
ICS A61K009-14; A61K009-50; A61K039-385
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 15
FAN.CNT 1

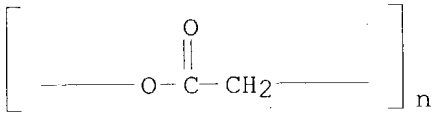
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9427718	A1	19941208	WO 1994-US5834	19940524 <--
	W: AU, CA, FI, JP, NO, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9470441	A1	19941220	AU 1994-70441	19940524 <--
	US 5603960	A	19970218	US 1995-374751	19950602 <--
PRAI	GB 1993-10781		19930525 <--		
	WO 1994-US5834		19940524 <--		

AB The present invention describes a method for producing microparticles useful in the formulation of pharmaceutical compns. The present invention further describes a method of immunizing a mammal against diseases comprising administering to a mammal an effective amount of antigen containing microparticles. In particular, the present invention describes a method of potentiating an immune response in a mammal comprising administering an effective amount of a pharmaceutical composition to a mammal. The present invention further describes a **vaccine** comprising a pharmaceutical composition containing said microparticles. An antigen delivery system comprising microparticles containing entrapped antigens is further described by the present invention. A pharmaceutical composition comprising microparticles and a pharmaceutical carrier is also provided.
ST microparticle immunization; **vaccine** microparticle

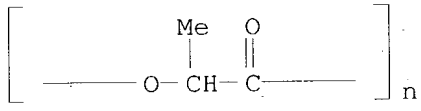
IT **Vaccines**
(preparation of microparticles and method of immunization)
IT Antigens
Peptides, biological studies
Polyesters, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of microparticles and method of immunization)
IT Pharmaceutical dosage forms
(microparticles, preparation of microparticles and method of immunization)
IT **75-09-2, Dichloromethane,** uses 141-78-6, Ethyl acetate, uses 142-82-5, Heptane, uses
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(preparation of microparticles and method of immunization)
IT **26009-03-0, Polyglycolide 26023-30-3 26202-08-4, Polyglycolide** 26680-10-4, **Poly (DL-lactide) 26780-50-7, Glycolide**-DL-**lactide** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of microparticles and method of immunization)
IT **75-09-2, Dichloromethane,** uses
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(preparation of microparticles and method of immunization)
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



IT **26009-03-0, Polyglycolide 26023-30-3 26202-08-4, Polyglycolide 26780-50-7, Glycolide**-DL-**lactide** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of microparticles and method of immunization)
RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



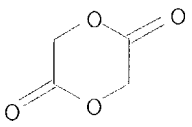
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26202-08-4 HCAPLUS
CN 1,4-Dioxane-2,5-dione, homopolymer (9CI) (CA INDEX NAME)

CM 1

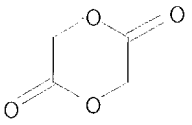
CRN 502-97-6
CMF C4 H4 O4



RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

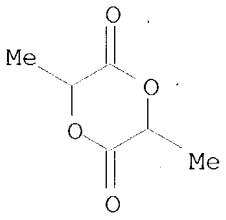
CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

CRN 95-96-5
CMF C6 H8 O4



L114 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:442594 HCAPLUS
DN 121:42594
ED Entered STN: 23 Jul 1994
TI **Controlled release** of proteins from poly(L-**lactic acid**) coated poly(isobutyl cyanoacrylate) microcapsules
AU Park, Tae Gwan; Alonso, Maria J.; Langer, Robert
CS Dep. Chem. Eng., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
SO Journal of Applied Polymer Science (**1994**), 52(12), 1797-807
CODEN: JAPNAB; ISSN: 0021-8995
DT Journal
LA English
CC 63-5 (Pharmaceuticals)
AB Poly(L-**lactic acid**)-coated poly(iso-Bu cyanoacrylate) (PIBCA) microcapsules containing protein mols. were prepared by a single-step procedure based on either a double-emulsion solvent evaporation method or a spray-drying method. First, an aqueous protein solution was emulsified in an organic phase of **methylene chloride** containing a wall-forming monomer (iso-Bu cyanoacrylate), various kinds of poly(L-**lactic acid**), and a surfactant. An immediate polymerization process of iso-Bu

cyanoacrylate takes place at the W/O interface upon contact with hydroxide ion in the aqueous phase, leading to the formation of a PICBA wall around the aqueous droplets. This W/O emulsion was reemulsified in an aqueous solution to promote the solvent removal and, consequently, the precipitation of poly(L-**lactic acid**) onto PICBA microcapsules or was spray albumin, horseradish peroxidase, and tetanus toxoid, were **encapsulated** in these poly(L-**lactic acid**)-coated PICBA microcapsules, and then their **release** profiles were examined in vitro as a function of mol. weight of poly(L-**lactic acid**) and its copolymers with **glycolic acid.** These formulations exhibited a low "burst" effect at initial incubation stages and **released** the proteins for extended periods of time. S.c. injection of the tetanus toxoid-loaded microparticles into rats showed that the time course of **immunization** (antibody titer) can be **controlled** by the type of polymer matrixes used.

ST **controlled release** protein microcapsule; **polylactic acid** polyisobutyl cyanoacrylate microcapsule

IT Solution rate
(of proteins, from **poly(lactic acid**)-coated poly(iso-Bu cyanoacrylate) microcapsules)

IT Proteins, biological studies
RL: BIOL (Biological study)
(**poly(lactic acid**)-coated poly(iso-Bu cyanoacrylate) microcapsules for **controlled release** of)

IT Polyesters, biological studies
RL: BIOL (Biological study)
(**lactic acid**-based, poly(iso-Bu cyanoacrylate) microcapsules coated with, **controlled release** of proteins from)

IT **Pharmaceutical dosage forms**
(**microcapsules, controlled release, poly(lactic acid**)-coated poly(iso-Bu cyanoacrylate), for proteins)

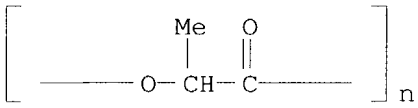
IT 26809-38-1, Poly(isobutyl cyanoacrylate)
RL: BIOL (Biological study)
(microcapsules, **poly(lactic acid**)-coated, **controlled release** of proteins from)

IT **26023-30-3**, Poly(DL-**lactic acid**)
26100-51-6, Poly(DL-**lactic acid**)
26161-42-2, Poly(L-**lactic acid**) 26811-96-1, Poly(L-**lactic acid**) **54512-07-1**, **Glycolic acid**-L-**lactic acid** copolymer
RL: BIOL (Biological study)
(poly(iso-Bu cyanoacrylate) microcapsules coated with, **controlled release** of proteins from)

IT **26023-30-3**, Poly(DL-**lactic acid**)
26100-51-6, Poly(DL-**lactic acid**)
26161-42-2, Poly(L-**lactic acid**)
54512-07-1, **Glycolic acid**-L-**lactic acid** copolymer
RL: BIOL (Biological study)
(poly(iso-Bu cyanoacrylate) microcapsules coated with, **controlled release** of proteins from)

RN 26023-30-3 HCAPLUS

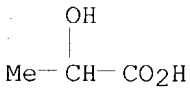
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



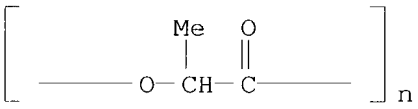
RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 50-21-5
CMF C3 H6 O3



RN 26161-42-2 HCAPLUS
CN Poly[oxy[(1S)-1-methyl-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)

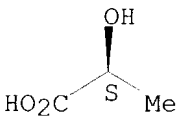


RN 54512-07-1 HCAPLUS
CN Propanoic acid, 2-hydroxy-, (2S)-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

CM 1

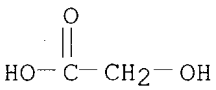
CRN 79-33-4
CMF C3 H6 O3

Absolute stereochemistry. Rotation (+).



CM 2

CRN 79-14-1
CMF C2 H4 O3



=> d l115 all hitstr tot

L115 ANSWER 1 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:151479 HCAPLUS
DN 126:162266
ED Entered STN: 08 Mar 1997
TI Biocompatible and biodegradable nanoparticles designed for proteinaceous drug absorption and delivery
IN Grandfils, Christian; Jerome, Robert; Nihant, Nicole; Teyssie, Philippe
PA University of Liege, Belg.
SO Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K009-51
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

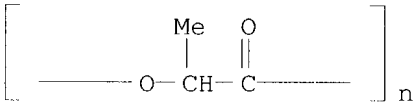
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 752245	A1	19970108	EP 1995-110445	19950705 <--
	EP 752245	B1	20020522		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 217792	E	20020615	AT 1995-110445	19950705 <--
	PT 752245	T	20020930	PT 1995-95110445	19950705 <--
	ES 2177592	T3	20021216	ES 1995-110445	19950705 <--
	CA 2226166	AA	19970123	CA 1996-2226166	19960702 <--
	CA 2226166	C	20010508		
	WO 9702022	A1	19970123	WO 1996-EP2878	19960702 <--
	W: CA, JP, US				
	JP 11504655	T2	19990427	JP 1997-504807	19960702 <--
	JP 3486417	B2	20040113		
	US 5962566	A	19991005	US 1998-973863	19980507 <--
PRAI	EP 1995-110445	A	19950705 <--		
	WO 1996-EP2878	W	19960702		

AB A polymer blend is obtained by intimate mixing a biocompatible polymer to form nanoparticles with a biocompatible interacting agent which is able to preserve the activity of the drug to be administered and to **control** the **release** of the drug to be administered. The polymer blend is an intermediate product for preparing nanoparticles which drugs can be adhered on or incorporated in. **Glycolide**-DL-**lactide** copolymer and Pluronic F68 were dissolved in **methylene chloride** and the solvent was let to evaporate under N. Cholesterol 3-sulfate was added to the polymer blend followed by DMSO for dissoln. Somatotropin was added to the solution and the suspension obtained was diluted with water and purified by ultrafiltration. The somatotropin immobilization efficiency in the concentrated latex suspension was 90 % and kinetics of in vitro **release** of the protein was studied.
ST polymer blend nanoparticle protein drug carrier; polyester Pluronic blend somatotropin nanoparticle
IT Polyesters, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biocompatible and biodegradable nanoparticles designed for proteinaceous drug absorption and delivery)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biol. active; biocompatible and biodegradable nanoparticles designed for proteinaceous drug absorption and delivery)
IT Drug delivery systems
(nanoparticles; biocompatible and biodegradable nanoparticles designed for proteinaceous drug absorption and delivery)
IT 9002-72-6, Somatotropin **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26680-10-4, **Polylactide 26780-50-7**, **Glycolide**-DL-**lactide** copolymer 106392-12-5, Pluronic

F68 157170-88-2, 2-Hydroxyethyl methacrylate-DL-**lactide** graft copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biocompatible and biodegradable nanoparticles designed for proteinaceous drug absorption and delivery)

IT **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]
26780-50-7, **Glycolide**-DL-**lactide** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biocompatible and biodegradable nanoparticles designed for proteinaceous drug absorption and delivery)

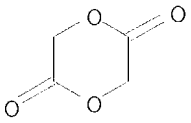
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

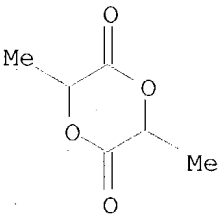
CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

CRN 95-96-5
CMF C6 H8 O4



L115 ANSWER 2 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:367770 HCAPLUS
DN 125:19065
ED Entered STN: 26 Jun 1996
TI Sustained-release preparation containing metal salt of a peptide
IN Igari, Yasutaka; Yamagata, Yutaka; Iinuma, Satoshi; Okada, Hiroaki
PA Takeda Chemical Industries, Ltd., Japan
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2

DT Patent
LA English
IC ICM A61K009-16
ICS A61K009-50
CC 63-6 (Pharmaceuticals)
FAN.CNT 2

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE	
PI	WO 9607399	A1	19960314		WO 1995-JP1771	19950906	<--
	W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN						
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG						
	CA 2196184	AA	19960314		CA 1995-2196184	19950906	<--
	AU 9533990	A1	19960327		AU 1995-33990	19950906	<--
	AU 695323	B2	19980813				
	EP 779806	A1	19970625		EP 1995-930707	19950906	<--
	EP 779806	B1	20001108				
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE						
	CN 1157562	A	19970820		CN 1995-194963	19950906	<--
	BR 9509201	A	19971230		BR 1995-9201	19950906	<--
	EP 1002529	A1	20000524		EP 1999-203867	19950906	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV						
	AT 197398	E	20001111		AT 1995-930707	19950906	<--
	ES 2151079	T3	20001216		ES 1995-930707	19950906	<--
	PT 779806	T	20010228		PT 1995-95930707	19950906	<--
	RU 2181999	C2	20020510		RU 1997-105827	19950906	<--
	JP 08217691	A2	19960827		JP 1995-230841	19950908	<--
	FI 9700952	A	19970306		FI 1997-952	19970306	<--
	NO 9701030	A	19970306		NO 1997-1030	19970306	<--
	US 6376461	B1	20020423		US 1999-426716	19991026	<--
	US 2002058622	A1	20020516		US 2001-985925	20011106	<--
	US 2002168337	A1	20021114		US 2002-136328	20020502	<--
PRAI	JP 1994-216449	A	19940909	<--			
	JP 1994-310291	A	19941214	<--			
	JP 1993-153393	A	19930624	<--			
	US 1994-265124	B2	19940624	<--			
	EP 1995-930707	A3	19950906	<--			
	WO 1995-JP1771	W	19950906	<--			
	US 1996-644631	A1	19960422				
	US 1999-426716	A3	19991026				
	US 2001-985925	A1	20011106				

AB A sustained-release preparation contain a water-insol. or slightly water-soluble polyvalent metal salt of a water-soluble peptide type of physiol. active substance, except for an endothelin antagonist and a biodegradable polymer. To a solution of 3.6 g **lactic acid**-**glycolic acid** copolymer in 5 mL of **dichloromethane** was added 420 mg of crude zinc salt of swine insulin (preparation given) in 5 mL of **dichloromethane** and stirred for 10 s, then this emulsion was poured in in 800 mL of 0.1% polyvinyl alc. and mixed at 6,000 rpm to yield an emulsion. The emulsion was stirred at room temperature for 3 h to volatilize the **dichloromethane** and the residue was dispersed in water and centrifuged to obtain microcapsules which were collected and re-dispersed in water in presence of 50 mg D-mannitol, then freeze-dried to give powder microcapsules. After s.c. injection of above microcapsules to rats, active swine insulin was detected in serum for 1 wk or more.

ST sustained release pharmaceutical metal salt peptide; insulin zinc sustained release microcapsule

IT Receptors
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(soluble; sustained-release preparation containing metal salt of a peptide)
IT Animal growth regulators
Antibodies
Antigens
Blood-coagulation factors
Enzymes
Hormones
Interferons
Lymphokines and Cytokines
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sustained-release preparation containing metal salt of a peptide)
IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sustained-release preparation containing metal salt of a peptide)
IT Polyesters, biological studies
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(aliphatic, sustained-release preparation containing metal salt of a peptide)
IT Hemopoietins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hematopoietic cell growth factors, sustained-release preparation containing metal salt of a peptide)
IT Peptides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(metal salts, sustained-release preparation containing metal salt of a peptide)
IT **Pharmaceutical dosage forms**
(**microcapsules, sustained-release,**
sustained-release preparation containing metal salt of a peptide)
IT Transition metal compounds
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(salts, with peptides; sustained-release preparation containing metal salt of a
peptide)
IT **Pharmaceutical dosage forms**
(**sustained-release, sustained-**
release preparation containing metal salt of a peptide)
IT Albumins, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(zinc complexes, sustained-release preparation containing metal salt of a peptide)
IT Interferons
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(α, sustained-release preparation containing metal salt of a peptide)
IT 8049-62-5P, Zinc insulin 12629-01-5DP, Human growth hormone, zinc salt
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)
(sustained-release preparation containing metal salt of a peptide)

IT 9002-72-6, Growth hormone 9004-10-8, Insulin, biological studies
74381-53-6, Leuprolide acetate
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sustained-release preparation containing metal salt of a peptide)

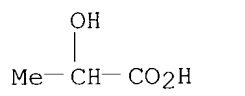
IT 557-34-6, Zinc acetate 759-73-9 1117-96-0, Diazoethane 1310-58-3, Potassium hydroxide, reactions 7646-85-7, Zinc chloride, reactions 12629-01-5, Human growth hormone
RL: RCT (Reactant); RACT (Reactant or reagent)
(sustained-release preparation containing metal salt of a peptide)

IT **50-21-5D, Lactic acid,** Et esters, polymers with **glycolic acid** 69-65-8, D-Mannitol **79-14-1D,** polymers with Et **lactate 26100-51-6, Lactic acid** homopolymer **34346-01-5, Lactic acid-glycolic acid** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sustained-release preparation containing metal salt of a peptide)

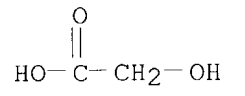
IT 143011-72-7P, Granulocyte colony stimulating factor
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(zinc salt; sustained-release preparation containing metal salt of a peptide)

IT **50-21-5D, Lactic acid,** Et esters, polymers with **glycolic acid 79-14-1D,** polymers with Et **lactate 26100-51-6, Lactic acid** homopolymer **34346-01-5, Lactic acid-glycolic acid** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sustained-release preparation containing metal salt of a peptide)

RN 50-21-5 HCAPLUS
CN Propanoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



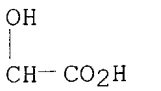
RN 79-14-1 HCAPLUS
CN Acetic acid, hydroxy- (9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

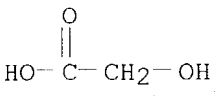
CRN 50-21-5
CMF C3 H6 O3



RN 34346-01-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

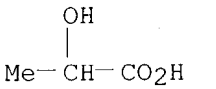
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 50-21-5
CMF C3 H6 O3



L115 ANSWER 3 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:252396 HCAPLUS
DN 124:270588
ED Entered STN: 30 Apr 1996
TI Slow-release pharmaceutical compositions containing 2-(8-dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine for Alzheimer's disease
IN Iwamoto, Nobuko; Tsunekawa, Yukiko; Mizuta, Hiroaki; Nakajima, Tooru
PA Yoshitomi Pharmaceutical Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K031-44
ICS A61K009-16; A61K047-34; C07D409-06
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 08034732	A2	19960206	JP 1995-118144	19950517 <--
PRAI JP 1994-102526		19940517 <--		

AB Slow-release pharmaceutical compns. for Alzheimer's disease contain 2-(8-dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine or its acid addition salts as active ingredient and biocompatible polymers having average particle size 15-400 μm. Thus, 2-(8-dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine citrate 33.7 and dl-**polylactic acid** (mol. weight 20,000) 189.2 mg were dissolved in 1 mL **dichloromethane** and homogenized with 0.1 M Na acetate-containing 0.5%

polyvinyl alc.(250 mL) to form oil/water-type emulsion. After s.c. or i.m. administration to rats, blood concentration of the active ingredient remained high for up to 1 mo.

ST slow release pharmaceutical thenoylisopropylpyridine Alzheimer disease; thenoylisopropylpyridine deriv Alzheimer disease

IT Drug bioavailability
Particle size
Solution rate
(slow-release pharmaceutical compns. containing 2-(8-dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine and biocompatible polymers for Alzheimer's disease)

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(slow-release pharmaceutical compns. containing 2-(8-dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine and biocompatible polymers for Alzheimer's disease)

IT Mental disorder
(Alzheimer's disease, slow-release pharmaceutical compns. containing 2-(8-dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine and biocompatible polymers for Alzheimer's disease)

IT **Pharmaceutical dosage forms**
(injections, i.m. or s.c.; **slow-release** pharmaceutical compns. containing 2-(8-dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine and biocompatible polymers for Alzheimer's disease)

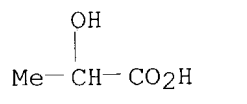
IT **26100-51-6**, dl-**Polylactic acid**
26124-68-5, **Polyglycolic acid** 129184-48-1, 2-(8-Dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine 143984-17-2, 2-(8-Dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine p-toluenesulfonate 143984-30-9, 2-(8-Dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine citrate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(slow-release pharmaceutical compns. containing 2-(8-dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine and biocompatible polymers for Alzheimer's disease)

IT **26100-51-6**, dl-**Polylactic acid**
26124-68-5, **Polyglycolic acid**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(slow-release pharmaceutical compns. containing 2-(8-dimethylaminooctylthio)-3-(2-thenoyl)-6-isopropylpyridine and biocompatible polymers for Alzheimer's disease)

RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

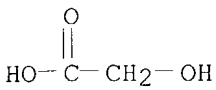
CRN 50-21-5
CMF C3 H6 O3



RN 26124-68-5 HCAPLUS
CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-14-1
CMF C2 H4 O3



L115 ANSWER 4 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:44091 HCAPLUS
DN 124:97546
ED Entered STN: 23 Jan 1996
TI Somatostatin containing biodegradable microspheres prepared by a modified solvent evaporation method based on W/O/W-multiple emulsions
AU Herrmann, Joachim; Bodmeier, Roland
CS College of Pharmacy, The University of Texas at Austin, Austin, TX, 78712, USA
SO International Journal of Pharmaceutics (**1995**), 126(1,2), 129-38
CODEN: IJPHDE; ISSN: 0378-5173
PB Elsevier
DT Journal
LA English
CC 63-6 (Pharmaceuticals)
AB Biodegradable polyester microspheres containing somatostatin acetate, a peptide drug, were prepared by a modified solvent evaporation method based on the formation of multiple W/O/W-emulsions. The resulting microspheres were characterized with respect to drug loading, **encapsulation** efficiency and morphol. characteristics. Various methods for extracting the peptide from the microspheres were compared. Of all parameters investigated, factors affecting the properties of the primary W/O-emulsion, such as the phase volume ratio and total volume, were of major importance. A small volume of internal aqueous phase and an intermediate volume of organic solvent were favorable to achieve high drug **encapsulation** efficiencies. Replacing **methylene chloride** as an organic solvent with Et acetate reduced the **encapsulation** efficiency and resulted in more porous microspheres. Except for microspheres prepared with very low mol. weight polymers, the **encapsulation** efficiency was not affected by the polymer type (**poly**(L-**lactide**), **poly**(DL-**lactide**), **poly**(DL-**lactide**/**glycolide**)) and mol. weight The preparation conditions substantially affected the morphol. and porosity of the microspheres.
ST peptide **encapsulation** biodegradable polymer microsphere; somatostatin **encapsulation** biodegradable polyester microsphere
IT Polymers, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(biodegradable; **microencapsulation** of peptide drugs in biodegradable polymer microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)
IT Solvents
(evaporation; **microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)
IT Peptides, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**microencapsulation** of peptide drugs in biodegradable polymer microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)
IT Porosity
(**microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based

on W/O/W-multiple emulsions)

IT Polyesters, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)

IT Polyesters, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hydroxycarboxylic acid-based, **microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)

IT Polyesters, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**lactic acid**-based, **microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)

IT **Encapsulation**
(micro-, **microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)

IT **Pharmaceutical dosage forms**
(**microspheres, controlled-release,** **microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)

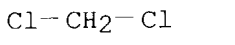
IT 67-56-1, Methanol, uses 75-05-8, Acetonitrile, uses **75-09-2, Methylene chloride,** uses 141-78-6, Ethyl acetate, uses
RL: NUU (Other use, unclassified); USES (Uses)
(**microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)

IT **26023-30-3 26161-42-2** 26680-10-4, **Poly**(DL-**lactide**) **26780-50-7**, DL-**Lactide-glycolide** copolymer 33135-50-1, **Poly**(L-**lactide**) 51110-01-1, Somatostatin
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)

IT 9002-89-5, Polyvinyl alcohol
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)

IT **75-09-2, Methylene chloride,** uses
RL: NUU (Other use, unclassified); USES (Uses)
(**microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)

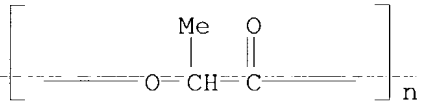
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



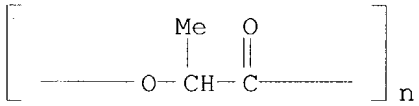
IT **26023-30-3 26161-42-2 26780-50-7**, DL-**Lactide-glycolide** copolymer
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic

use); BIOL (Biological study); PROC (Process); USES (Uses)
(**microencapsulation** of somatostatin in biodegradable polyester microspheres prepared by modified solvent evaporation method based on W/O/W-multiple emulsions)

RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



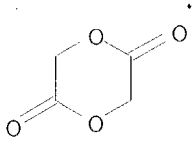
RN 26161-42-2 HCAPLUS
CN Poly[oxy[(1S)-1-methyl-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)



RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

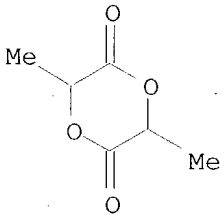
CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

CRN 95-96-5
CMF C6 H8 O4



L115 ANSWER 5 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:38799 HCAPLUS
DN 124:66652
ED Entered STN: 20 Jan 1996
TI Modulated-release pharmaceuticals containing a biocompatible polymer

matrix and a metal cation
IN Bernstein, Howard; Zhang, Yan; Khan, M. Amin; Tracy, Mark A.
PA Alkermes Controlled Therapeutics, Inc., USA
SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K009-16
ICS A61K009-70
CC 63-6 (Pharmaceuticals)
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9529664	A1	19951109	WO 1995-US5511	19950503 <--
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5656297	A	19970812	US 1994-237057	19940503 <--
	AU 9524674	A1	19951129	AU 1995-24674	19950503 <--
	AU 688506	B2	19980312		
	EP 758227	A1	19970219	EP 1995-918942	19950503 <--
	EP 758227	B1	20040114		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 10504017	T2	19980414	JP 1995-528506	19950503 <--
	US 5912015	A	19990615	US 1998-56566	19980407 <--
	US 6368630	B1	20020409	US 1999-274613	19990323 <--
	US 2002168410	A1	20021114	US 2002-39285	20020103 <--
PRAI	US 1994-237057	A2	19940503 <--		
	US 1992-849754	B2	19920312 <--		
	WO 1995-US5511	W	19950503 <--		
	US 1996-727531	A1	19961022		
	US 1998-56566	A1	19980407		
	US 1999-274613	A1	19990323		

AB A composition for the modulated release of a biol. active agent comprises a biocompatible polymeric matrix, a biol. active agent which is dispersed within the polymeric matrix, and a metal cation component which is sep. dispersed within the polymeric matrix, whereby the metal cation component modulates the release of the biol. active agent from the polymeric matrix. A 10 mM solution of zinc acetate dihydrate was added to interferon-α 2, b (I) to obtain a final concentration of 1.3 mg/mL I, then the pH was adjusted to 7.1 with acetic acid. The above stabilized Zn-I suspension was micronized, frozen, and lyophilized to obtain I powder. Zinc carbonate and I powder were added in different proportions to a solution of 0.4g **poly(lactide-glycolide)** (II) in 4mL **methylene chloride** and then were **microencapsulated** in II to form I microspheres. Microsphere doses of 0.9 mg/kg were injected into the intrascapular region of the rats and blood concentration of I was measured at different times. The sustained-release level of immunol. active I was modulated depending upon the ratio of zinc carbonate to Zn-I in the microspheres, the higher the ratio of zinc carbonate demonstrated lower release rates of I from the microspheres.

ST pharmaceutical modulated release polymer metal cation; zinc carbonate interferon sustained release microsphere

IT Acrylic polymers, biological studies
Animal growth regulators
Cations
Interferons

Polyanhydrides
Proteins, biological studies
Urethane polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT **Pharmaceutical dosage forms**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**films, sustained-release,**
modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT Lymphokines and Cytokines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interleukins, modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT **Pharmaceutical dosage forms**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**microspheres, sustained-release,**
modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT Polyethers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ortho ester group-containing, modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT **Pharmaceutical dosage forms**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**pellets, sustained-release,**
modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT Polyesters, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyamide-, modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT Polyamides, biological studies
Polyethers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyester-, modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT Polyesters, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyether-, modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT Alkenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymers, chlorosulfonate; modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT Lymphokines and Cytokines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tumor necrosis factor, modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT Interferons
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(α, 2, b; modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT 9001-99-4
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(A; modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

IT 74-85-1D, Ethene, polymers with vinyl acetate and acyl-substituted cellulose acetate 108-05-4D, Acetic acid ethenyl ester, polymers with ethylene and acyl-substituted cellulose acetate 142-72-3, Magnesium acetate 471-34-1, Calcium carbonate, biological studies 546-46-3, Zinc citrate 546-93-0, Magnesium carbonate 557-34-6, Zinc acetate

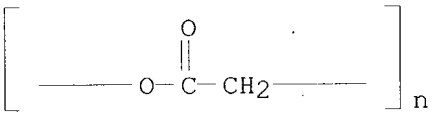
1309-42-8, Magnesium hydroxide 3486-35-9, Zinc carbonate 5970-45-6, Zinc acetate dihydrate 7487-88-9, Magnesium sulfate, biological studies 7646-85-7, Zinc chloride, biological studies 7733-02-0, Zinc sulfate 7779-25-1, Magnesium citrate 7786-30-3, Magnesium chloride, biological studies 9002-60-2, Acth, biological studies 9002-86-2, Pvc 9003-53-6 9004-35-7D, acyl-substituted polymers with ethylene and vinyl acetate 9026-81-7, Nuclease 11096-26-7, Erythropoietin 12629-01-5, Human growth hormone 24980-41-4, Polycaprolactone 24981-14-4, Polyvinyl fluoride 25232-42-2, Poly(vinyl imidazole) 25248-42-4, Polycaprolactone 25322-68-3 **26009-03-0, Polyglycolide** **26023-30-3,** Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6, Poly(lactic acid)** **26124-68-5, Poly(glycolic acid)** **26202-08-4, Polyglycolide** 26680-10-4, **Polylactide 26780-50-7, Poly(glycolide -lactide)** 62683-29-8, Colony-stimulating factor

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

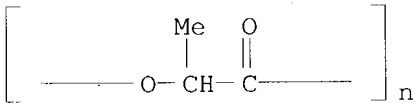
IT **26009-03-0, Polyglycolide 26023-30-3,** Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6, Poly(lactic acid) 26124-68-5, Poly(glycolic acid) 26202-08-4, Polyglycolide 26780-50-7, Poly(glycolide-lactide)**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modulated-release pharmaceuticals containing biocompatible polymer matrix and metal cation)

RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



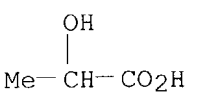
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 50-21-5
CMF C3 H6 O3

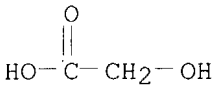


RN 26124-68-5 HCAPLUS

CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

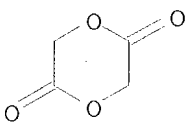
CRN 79-14-1
CMF C2 H4 O3



RN 26202-08-4 HCAPLUS
CN 1,4-Dioxane-2,5-dione, homopolymer (9CI) (CA INDEX NAME)

CM 1

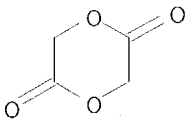
CRN 502-97-6
CMF C4 H4 O4



RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

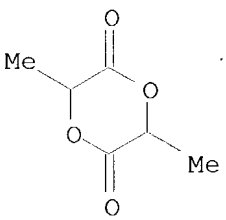
CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

CRN 95-96-5
CMF C6 H8 O4



AN 1995:1003552 HCAPLUS
DN 124:66431
ED Entered STN: 26 Dec 1995
TI Prediction of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method
AU Li, Wen-I; Anderson, Kimberly W.; Mehta, Rahul C.; DeLuca, Patrick P.
CS Department of Chemical Engineering, Pennsylvania State University, University Park, PA, 16802, USA
SO Journal of Controlled Release (**1995**), 37(3), 199-214
CODEN: JCREEC; ISSN: 0168-3659
PB Elsevier
DT Journal
LA English
CC 63-5 (Pharmaceuticals)
AB Using a predictive math. model, several important extrinsic process variables were varied to simulate the process dynamics of microsphere formation. These included the composition profile in the dispersed phase, the solvent concentration profile in the continuous phase and the solvent removal profile in the dispersed phase. By superimposing the composition profile in the dispersed phase with the phase transition boundary, the progression of phase transition in microsphere formation can be evaluated. Low dispersed phase/continuous phase ratio, high continuous phase-addition rate, high temperature, high heating rate and high initial polymer concentration in the dispersed phase contributed to enhanced solvent removal. The higher solvent removal led to a heterogeneous composition distribution in the dispersed phase and the early cross-over of the gelation point (viscous boundary) of the periphery region which initiates the onset of solidification in this region. These phenomena resulted in an increasing pore size, lower surface area, denser periphery, higher residual solvent and slower drug release. In addition, the progress toward the glassy boundary may also play a major role in the ultimate solvent residual. Slow solvent removal gave rise to a homogeneous distribution of the components in the dispersed phase due to the delay of hardening. The extrinsic manageable parameters could be varied during microsphere formation to obtain the desired rate of solvent removal as well as the desired microsphere properties. The math. model was used to simulate such conditions to facilitate the exptl. design for the desired microsphere properties.
ST peptide polyester microsphere solvent removal modeling; **glycolide lactide** copolymer **microencapsulation** solvent removal; **controlled release** peptide polyester microsphere
IT Evaporation
Extraction
Pore
Simulation and Modeling, physicochemical
Solvents
Surface area
(modeling of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method)
IT Peptides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modeling of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method)
IT Polyesters, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hydroxycarboxylic acid-based, modeling of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method)
IT **Encapsulation**

(micro-, modeling of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method)

IT **Pharmaceutical dosage forms**
(**microspheres, controlled-release,**
modeling of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method)

IT 67-56-1, Methanol, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cosolvent; modeling of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method)

IT **26780-50-7, Poly(glycolide-co-lactide)**
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(modeling of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method)

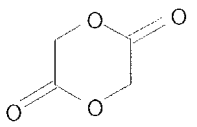
IT **75-09-2, Methylene chloride,** biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(solvent; modeling of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method)

IT **26780-50-7, Poly(glycolide-co-lactide)**
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(modeling of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method)

RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

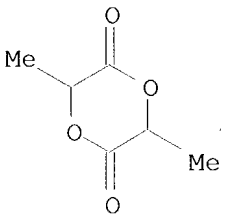
CM 1

CRN 502-97-6
CMF C4 H4 O4

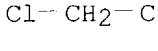


CM 2

CRN 95-96-5
CMF C6 H8 O4



IT **75-09-2, Methylene chloride,** biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(solvent; modeling of solvent removal profile and effect on properties for peptide-loaded PLGA microspheres prepared by solvent extraction/evaporation method)
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



L115 ANSWER 7 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:997353 HCAPLUS
DN 124:37717
ED Entered STN: 22 Dec 1995
TI **Controlled-release** biodegradable microspheres and method of preparation
IN Arola, Rosa; Asin, Miguel Angel; Ferret, Eulalia; Goutay, Eric; Perez, Amadeo; Tarin, Pere
PA Pierre Fabre Medicament, Fr.
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA French
IC ICM A61K009-50
ICS A61K009-16
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9528149	A1	19951026	WO 1995-FR485	19950413	<--
	W: AU, CA, JP, NZ, US					
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
	FR 2718642	A1	19951020	FR 1994-4511	19940415	<--
	FR 2718642	B1	19960712			
	CA 2187898	AA	19951026	CA 1995-2187898	19950413	<--
	AU 9523478	A1	19951110	AU 1995-23478	19950413	<--
	AU 698796	B2	19981105			
	EP 804173	A1	19971105	EP 1995-917394	19950413	<--
	EP 804173	B1	19981028			
	R: AT, BE, CH, DE, DK, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE					
	JP 09512002	T2	19971202	JP 1995-526769	19950413	<--
	AT 172639	E	19981115	AT 1995-917394	19950413	<--
PRAI	FR 1994-4511		19940415	<--		
	WO 1995-FR485		19950413	<--		

AB A method for the preparation of a pharmaceutical composition in the form of **controlled-release** microspheres **releasing** at

least one water soluble active ingredient is disclosed. The method comprises the steps of dissolving the active ingredient in a suitable quantity of water; emulsifying the aqueous solution containing the active ingredient with a solution of at least a D,L-**lactide**-co-**glycolide**-type matrix copolymer (I) in a chlorinated hydrocarbon further containing a low mol. weight **polylactide release**-modulating agent, which results in a first microfine and homogeneous emulsion; emulsifying the first emulsion thus obtained in an external aqueous phase, containing a surface active agent; and removing and evaporating the solvent to produce microspheres which are recovered after filtering, washing and drying. Thus, 20 mg tartrazine (II) was dissolved in 1mL water and the solution was mixed with 10mL of CH2Cl2 containing 20% I and 40% **poly**(DL-**lactide**) to obtain an emulsion. This emulsion was emulsified with 1L solution containing 4% PVP and 0.25% ethoxylated sorbitan monooleate followed by evaporation of the solvents to obtain microspheres which was separated and dried. The amount of II **released** from the microspheres after 48 h at pH = 7.4 and 37° was 102.3%.

ST **controlled release** biodegradable pharmaceutical microsphere **polylactide**; tartrazine **controlled release** pharmaceutical microsphere **polylactide**

IT Surfactants
(**controlled-release** biodegradable microspheres comprising **polylactides**)

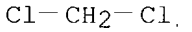
IT Hydrocarbons, uses
RL: NUU (Other use, unclassified); USES (Uses)
(chloro, **controlled-release** biodegradable microspheres comprising **polylactides**)

IT **Pharmaceutical dosage forms**
(**microspheres, controlled-release**, **controlled-release** biodegradable microspheres comprising **polylactides**)

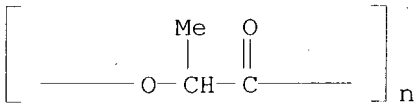
IT 50-56-6, Oxytocin, biological studies 54-21-7, Sodium salicylate 57-22-7, Vincristine 59-05-2, Methotrexate 60-54-8, Tetracycline 69-53-4, Ampicillin **75-09-2, Methylene chloride**, biological studies 154-93-8, Carmustin 1393-25-5, Secretin 1403-66-3, Gentamycin 1934-21-0, Tartrazine 3778-73-2, Ifosfamide 9002-62-4, Prolactin, biological studies 9002-67-9, Luteinizing hormone 9002-72-6, Growth hormone 9003-39-8, Pvp 9005-65-6, Ethoxylated sorbitan monooleate 9007-12-9, Calcitonin 11000-17-2, Vasopressin 15307-79-6, Sodium diclofenac 15663-27-1, Cisplatin 18559-94-9, Salbutamol 20830-81-3, Daunorubicin 23214-92-8, Doxorubicin **26023-30-3** 26159-34-2, Sodium naproxen 26680-10-4, **Poly**(DL-**lactide**) **26780-50-7**, D,L-**Lactide-glycolide** copolymer 26787-78-0, Amoxicillin 32986-56-4, Tobramycin 37517-28-5, Amikacin 51022-70-9, Salbutamol sulfate 51110-01-1, Somatostatin 53643-48-4, Vindesine 56420-45-2, Epirubicin 71486-22-1, Vinorelbine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**controlled-release** biodegradable microspheres comprising **polylactides**)

IT **75-09-2, Methylene chloride**, biological studies **26023-30-3 26780-50-7**, D,L-**Lactide-glycolide** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**controlled-release** biodegradable microspheres comprising **polylactides**)

RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



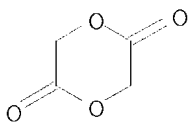
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

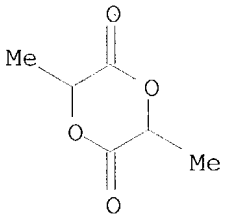
CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

CRN 95-96-5
CMF C6 H8 O4



L115 ANSWER 8 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:721419 HCAPLUS
DN 123:93332
ED Entered STN: 05 Aug 1995
TI Rod-like **controlled-release** drug implants
IN Fujioka, Keiji; Hirasawa, Kenji; Kajiwara, Masako; Sano, Akihiro; Sugawara, Syuichi; Urabe, Yosuke
PA Dow Corning Asia, Ltd., Japan; Sumitomo Pharmaceuticals Co., Ltd.
SO Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K009-20
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 659406	A2	19950628	EP 1994-120709	19941227 <--
	EP 659406	A3	19951115		
	EP 659406	B1	20000322		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 07187994	A2	19950725	JP 1993-331467	19931227 <--
	CA 2139058	AA	19950628	CA 1994-2139058	19941223 <--
	WO 9517881	A1	19950706	WO 1994-JP2208	19941226 <--
	W: AM, AU, BB, BG, BR, BY, CN, CZ, EE, FI, GE, HU, KE, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, UZ, VN				
	RW: KE, MW, SD, SZ, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9512809	A1	19950717	AU 1995-12809	19941226 <--
	AU 686713	B2	19980212		
	CN 1142763	A	19970212	CN 1994-195010	19941226 <--
	CN 1107497	B	20030507		
	AT 190836	E	20000415	AT 1994-120709	19941227 <--
	PT 659406	T	20000630	PT 1994-94120709	19941227 <--
	ES 2146633	T3	20000816	ES 1994-120709	19941227 <--
	US 5851547	A	19981222	US 1996-762847	19961210 <--
PRAI	JP 1993-331467	A	19931227 <--		
	US 1994-362623	B1	19941222 <--		
	WO 1994-JP2208	W	19941226 <--		

AB A rod-like drug formulation for producing sustained therapeutic efficacy comprises (a) a nondisintegrating inner layer comprised of a biocompatible material that contains uniformly dispersed water-soluble drug and (b) an outer layer comprised of a biocompatible material that surrounds the circumference of the inner layer, is impermeable to water, and is capable of controlling the swelling of the inner layer. The ratio of the axial length of the drug formulation to the cross-sectional diameter of the inner layer is one or more and one or both ends of the inner layer are open so as to come into direct contact with the external environment. For example, tetracycline·HCl was dispersed in **methylene chloride** solution of ethylene-vinyl acetate copolymer and cooled to solidification. The material was dried and cut into narrow strips, which were immersed in a **methylene chloride** solution of **glycolic acid-lactic acid** copolymer. After drying them, both ends were cut off to yield a drug formulation having an inner layer size of 5 mm + 0.9 mm + 10 mm and an outer layer thickness of 0.14 mm.

ST **controlled release** drug implant rod polymer

IT Albumins, biological studies
Alkylating agents, biological
Amino acids, biological studies
Animal growth regulators
Antibodies
Blood-coagulation factors
Enzymes
Glycoproteins, biological studies
Hormones
Immunosuppressants
Inflammation inhibitors
Interferons
Lymphokines and Cytokines
Neoplasm inhibitors
Nucleic acids
Peptides, biological studies
Polyanhydrides
Polyesters, biological studies
Polysaccharides, biological studies
Proteins, biological studies

Rubber, silicone, biological studies
Salts, biological studies
Siloxanes and Silicones, biological studies
Urethane polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(rod-like **controlled-release** drug implants)

IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CAM, rod-like **controlled-release** drug implants)

IT Hemopoietins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hematopoietic cell growth factors, rod-like **controlled-release** drug implants)

IT **Pharmaceutical dosage forms**
(implants, rod-like **controlled-release** drug implants)

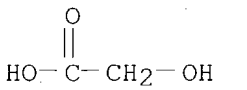
IT 64-75-5, Tetracycline hydrochloride 79-10-7D, 2-Propenoic acid, derivs., polymers 79-41-4D, derivs., polymers 9002-84-0, Polytetrafluoroethylene 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9003-07-0, Polypropylene 24937-78-8, Ethylene-vinyl acetate copolymer **34346-01-5, Lactic acid-glycolic acid** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(rod-like **controlled-release** drug implants)

IT **34346-01-5, Lactic acid-glycolic acid** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(rod-like **controlled-release** drug implants)

RN 34346-01-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

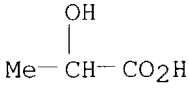
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 50-21-5
CMF C3 H6 O3

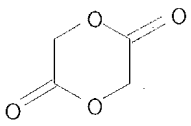


L115 ANSWER 9 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:686479 HCAPLUS
DN 121:286479
ED Entered STN: 10 Dec 1994
TI Preparation and characterization of copoly(dL-**lactic/glycolic acid**) microparticles for sustained release of thyrotropin releasing hormone by double nozzle spray drying method

AU Takada, Shigeyuki; Uda, Yoshiaki; Toguchi, Hajime; Ogawa, Yasuaki
CS DDS Research Laboratories, Takeda Chemical Industries, Ltd. 17-85, Juso-honmachi 2-chome, Yodogawa-ku, Osaka, 532, Japan
SO Journal of Controlled Release (**1994**), 32(1), 79-85
CODEN: JCREEC; ISSN: 0168-3659
DT Journal
LA English
CC 63-6 (Pharmaceuticals)
AB Copoly(dL-**lactic/glycolic acid**) microparticles for sustained release of a water soluble drug (TSH releasing hormone: TRH) were prepared by a spray drying method. In the case of double nozzle spray drying (DNSD) using acetonitrile, the effect of TRH loading amount on the initial burst was smaller than that with in-water drying. The microparticles prepared by DNSD and loaded with up to 10% TRH exhibited a small initial burst followed by a constant release rate over 4 wk. The drug release from the polymer was much faster than the polymer weight loss. The mean particle size of the spray dried microparticles was smaller than that with in-water drying. Acetonitrile used in DNSD is a less toxic organic solvent than **dichloromethane**, and the residual amount in the microparticles was similar to that in the in-water drying method. In conclusion, the production of biodegradable microparticles by the double nozzle spray drying method should be an attractive alternative to conventional **microencapsulation** methods.
ST microparticle injection **lactide glycolide** copolymer; TSH releasing hormone sustained release microparticle; spray drying **lactide glycolide** copolymer microparticle
IT Particle size
Solution rate
((glycolic-dL-**lactic acid**) microparticles for sustained release of TSH releasing hormone by double nozzle spray drying method)
IT Drying
(spray, (glycolic-dL-**lactic acid**) microparticles for sustained release of TSH releasing hormone by double nozzle spray drying method)
IT **Pharmaceutical dosage forms**
(**sustained-release**, (glycolic-dL-**lactic acid**) microparticles for **sustained release** of TSH releasing hormone by double nozzle spray drying method)
IT 24305-27-9, Thyrotropin releasing hormone
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((glycolic-dL-**lactic acid**) microparticles for sustained release of TSH releasing hormone by double nozzle spray drying method)
IT **26780-50-7**, (**Glycolide**-DL-**lactide** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((**glycolide**-DL-**lactide**) microparticles for sustained release of TSH releasing hormone by double nozzle spray drying method)
IT **26780-50-7**, (**Glycolide**-DL-**lactide** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((**glycolide**-DL-**lactide**) microparticles for sustained release of TSH releasing hormone by double nozzle spray drying method)
RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

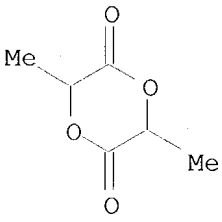
CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

CRN 95-96-5
CMF C6 H8 O4

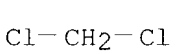


L115 ANSWER 10 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:331162 HCAPLUS
DN 120:331162
ED Entered STN: 25 Jun 1994
TI Pharmaceutical microspheres for the prolonged release of the LHRH hormone and its analogs
IN Billot, Genevieve B.; Teichner, Marc M.
PA Rhone-Merieux, Fr.
SO Can. Pat. Appl., 27 pp.
CODEN: CPXXEB
DT Patent
LA English
IC ICM A61K037-43
ICS A61K009-16; A61K009-52; B01J013-02
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

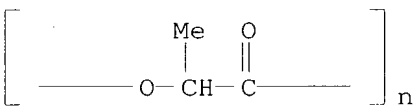
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2100925	AA	19940128	CA 1993-2100925	19930720 <--
	FR 2693905	A1	19940128	FR 1992-9241	19920727 <--
	FR 2693905	B1	19940902		
	AU 9342022	A1	19940210	AU 1993-42022	19930719 <--
	AU 675788	B2	19970220		
	EP 585151	A1	19940302	EP 1993-401874	19930720 <--
	EP 585151	B1	20000105		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	AT 188382	E	20000115	AT 1993-401874	19930720 <--
	ES 2141756	T3	20000401	ES 1993-401874	19930720 <--
	JP 06087758	A2	19940329	JP 1993-204578	19930727 <--
	US 5540937	A	19960730	US 1993-97014	19930727 <--
PRAI	FR 1992-9241	A	19920727 <--		

AB A process for preparing microspheres for the prolonged release of the LHRH hormone and its analogs is disclosed. Thus, 400 mg **poly**(DL-**lactide-glycolide**) was dissolved in 3.5 g of THF and LHRH hormone was gradually added thereto with stirring. The solvent was evaporated and the mass was dissolved in CH2Cl2 and the dispersion was injected into water containing 1% polyvinyl alc. CH2Cl2 was evaporated and microspheres were harvested by filtration, then washed and dried to obtain

microspheres containing 8.1% LHRH hormone.
ST prolonged release pharmaceutical microsphere LHRH hormone
IT Solvents
(in preparation of prolonged-release pharmaceutical microspheres containing LHRH
hormone)
IT **Pharmaceutical dosage forms**
(**microspheres, sustained-release,** LHRH
hormone in)
IT 67-64-1, Acetone, biological studies 67-66-3, Chloroform, biological studies 75-05-8, Acetonitrile, biological studies **75-09-2, Dichloromethane,** biological studies 78-93-3, Methyl ethyl ketone, biological studies 100-51-6, Benzyl alcohol, biological studies 108-88-3, Toluene, biological studies 109-99-9, Thf, biological studies 110-86-1, Pyridine, biological studies 123-91-1, Dioxane, biological studies 141-78-6, Ethyl acetate, biological studies 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone **26023-30-3, Poly(lactide)** 26063-00-3, Polyhydroxy butyrate **26100-51-6, Poly(lactic acid)** 26354-94-9, Polyvalerolactone 26680-10-4, **Poly(lactide)** 26744-04-7, Polyhydroxy butyrate **26780-50-7, Poly(glycolide-lactide) 34346-01-5, Poly(lactic acid-glycolic acid)** 133644-68-5
RL: BIOL (Biological study)
(in preparation of prolonged-release pharmaceutical microspheres containing LHRH
hormone)
IT 9034-40-6, LHRH
RL: BIOL (Biological study)
(prolonged-release pharmaceutical microspheres containing)
IT **75-09-2, Dichloromethane,** biological studies **26023-30-3, Poly(lactide) 26100-51-6, Poly(lactic acid) 26780-50-7, Poly(glycolide-lactide) 34346-01-5, Poly(lactic acid-glycolic acid)**
RL: BIOL (Biological study)
(in preparation of prolonged-release pharmaceutical microspheres containing LHRH
hormone)
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



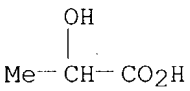
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

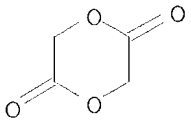
CRN 50-21-5
CMF C3 H6 O3



RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

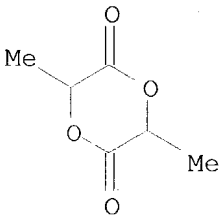
CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

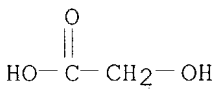
CRN 95-96-5
CMF C6 H8 O4



RN 34346-01-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

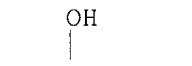
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 50-21-5
CMF C3 H6 O3

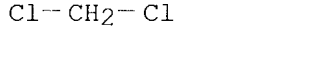


L115 ANSWER 11 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:307515 HCAPLUS
DN 120:307515
ED Entered STN: 11 Jun 1994
TI Method for producing sustained-release microsphere preparation
IN Kobayashi, Masao; Nishioka, Yukiko; Suzuki, Takehiko; Matsukawa, Yasuhisa
PA Tanabe Seiyaku Co., Ltd., Japan
SO Can. Pat. Appl., 28 pp.
CODEN: CPXXEB
DT Patent
LA English
IC ICM A61K009-52
ICS A61K009-16; A61K009-10; A61K047-34
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

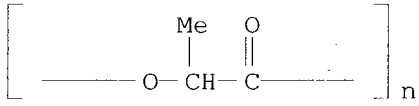
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2099941	AA	19940117	CA 1993-2099941	19930706 <--
	CA 2099941	C	19991228		
	JP 06032732	A2	19940208	JP 1992-189181	19920716 <--
	JP 2651320	B2	19970910		
	US 5556642	A	19960917	US 1993-89194	19930712 <--
	EP 586838	A1	19940316	EP 1993-111455	19930716 <--
	EP 586838	B1	19971105		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 159854	E	19971115	AT 1993-111455	19930716 <--
	ES 2110544	T3	19980216	ES 1993-111455	19930716 <--
PRAI	JP 1992-189181	A	19920716 <--		

AB A method is disclosed for producing a sustained-release microsphere preparation for a water-soluble medicament which has high incorporation efficiency of the medicament and low initial burst. The method comprises dissolving a water-soluble pharmaceutical active ingredient and a water-insol. biodegradable polymer in 1-2 solvents in which both can dissolve, removing the solvent to give a solid dispersion having the water-soluble pharmaceutical active ingredient dispersed into the biodegradable polymer at a mol. level, and further, dissolving said solid dispersion in an organic solvent being water-immiscible and having a b.p. of <100°C, adding the resulting oil phase into an aqueous phase containing emulsifying agent to give an oil-in-water emulsion, and removing the organic solvent from the oil phase of the resulting emulsion. The methodol. was applied to preparation of sustained-release microspheres of TRH, a TRH derivative, etc.
ST pharmaceutical sustained release microsphere prepn; TRH sustained release microsphere
IT Solvents
Gelatins, uses
RL: PREP (Preparation)
(in pharmaceutical sustained-release microsphere preparation)
IT Polymers, uses
RL: PREP (Preparation)
(water-insol. in pharmaceutical sustained-release microsphere preparation)
IT Castor oil
RL: PREP (Preparation)
(hydrogenated, ethoxylated, in pharmaceutical sustained-release microsphere preparation)
IT **Pharmaceutical dosage forms**

(**microspheres, sustained-release,** preparation
of, solvent dispersion and emulsion formation in)
IT Emulsions
(oil-in-water, in sustained-release microsphere preparation)
IT 7732-18-5
RL: BIOL (Biological study)
(emulsions, oil-in-water, in sustained-release microsphere preparation)
IT 56-23-5, Carbon tetrachloride, uses 64-17-5, Ethanol, uses 67-66-3,
Chloroform, uses 75-05-8, Acetonitrile, uses **75-09-2,**
Methylene chloride, uses 1300-21-6, Dichloroethane
9002-89-5, Polyvinyl alcohol 9003-39-8, Polyvinylpyrrolidone
25322-68-3, Polyethylene glycol **26023-30-3, Polylactic**
acid 26100-51-6, Polylactic acid
34346-01-5, Lactic acid-glycolic
acid copolymer
RL: BIOL (Biological study)
(in pharmaceutical sustained-release microsphere preparation)
IT 9034-40-6P, LHRH 24305-27-9P, TRH 103300-74-9P 137888-11-0P
RL: PREP (Preparation)
(pharmaceutical sustained-release microsphere preparation of)
IT **75-09-2, Methylene chloride,** uses
26023-30-3, Polylactic acid 26100-51-6
, Polylactic acid 34346-01-5, Lactic
acid-glycolic acid copolymer
RL: BIOL (Biological study)
(in pharmaceutical sustained-release microsphere preparation)
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



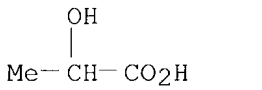
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

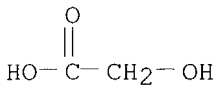
CRN 50-21-5
CMF C3 H6 O3



RN 34346-01-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA
INDEX NAME)

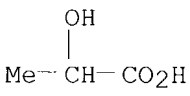
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 50-21-5
CMF C3 H6 O3



L115 ANSWER 12 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:280324 HCAPLUS
DN 120:280324
ED Entered STN: 28 May 1994
TI Manufacture of slow-release microcapsules containing pharmaceuticals or agrochemicals
IN Myagawa, Tetsuya; Abe, Seiji; Sakamoto, Izumi
PA Unitika Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K009-50
ICS A01N025-18; A01N025-28; B01J013-12
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 5
FAN.CNT 1

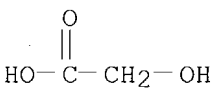
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 06065064	A2	19940308	JP 1992-239012	19920813 <--
PRAI JP 1992-239012		19920813 <--		

AB Microcapsules that release water-soluble pharmaceuticals (or agrochems.) slowly for a prolonged period are prepared by forming a water-in-oil emulsion consisting of a water-soluble pharmaceutical (or agrochems.) solution as internal aqueous phase and then adding this emulsion to an oily polymer solution and drying. For example, a water-in-oil emulsion was prepared (1) by mixing **lactic acid-glycolic acid** copolymer dissolved in **dichloromethane** and an aqueous solution of benzylpenicillin K salt, (2) by adding this emulsion to a poly(vinyl alc.) solution, and (3) finally, by drying the emulsion.
ST microcapsule pharmaceutical agrochem polymer
IT **Encapsulation**
(micro-, of pharmaceuticals and agrochems., slow-release)
IT **Pharmaceutical dosage forms**
(**slow-release, microencapsulation** for)
IT Agrochemical formulations
(sustained-release, **microencapsulation** for)
IT 113-98-4, Benzylpenicillin potassium
RL: PROC (Process)
(pharmaceutical **microencapsulation** of, for slow-release)
IT **34346-01-5, Lactic acid-glycolic**

acid copolymer
RL: BIOL (Biological study)
(pharmaceutical **microencapsulation** with, for slow-release)
IT **34346-01-5, Lactic acid-glycolic**
acid copolymer
RL: BIOL (Biological study)
(pharmaceutical **microencapsulation** with, for slow-release)
RN 34346-01-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

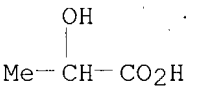
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 50-21-5
CMF C3 H6 O3



L115 ANSWER 13 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1993:525108 HCAPLUS
DN 119:125108
ED Entered STN: 18 Sep 1993
TI Preparations of biodegradable nanospheres of water-soluble and insoluble drugs with DL-**lactide/glycolide** copolymer by a novel spontaneous emulsification solvent diffusion method, and the drug release behavior
AU Niwa, T.; Takeuchi, H.; Hino, T.; Kunou, N.; Kawashima, Y.
CS Dep. Pharm. Eng., Gifu Pharm. Univ., Gifu, 502, Japan
SO Journal of Controlled Release (**1993**), 25(1-2), 89-98
CODEN: JCREEC; ISSN: 0168-3659
DT Journal
LA English
CC 63-6 (Pharmaceuticals)
AB Nanospheres with DL-**lactide/glycolide** copolymer (PLGA) were prepared as a biodegradable polymeric carrier for both water-soluble and insol. drugs by a novel spontaneous emulsification solvent diffusion method. Indomethacin and 5-fluorouracil (5-FU) were employed as poorly water-soluble and water-soluble model drugs, resp., to investigate the **encapsulation** efficiency. The drug and PLGA, dissolved in an acetone-**dichloromethane** (or acetone-chloroform) mixture, were poured into an aqueous solution of polyvinyl alc. with stirring using a high-speed homogenizer when necessary. The dispersed droplets were finely emulsified into nanometer-sized spheres. The marked decrease of the interfacial tension between organic and aqueous phases and the spontaneous mixing caused by a rapid diffusion of acetone from the organic to aqueous phase resulted

in the formation of submicron-sized PLGA spheres. The recovery of indomethacin entrapped in the nanospheres (mean diameter: 400-600 nm) increased to 75% at maximum The rapid deposition of polymeric film on the droplet was required for improving the **encapsulation** of 5-FU to prevent leakage from the droplet. The mean diameter of nanospheres formulated with 5-FU were successfully decreased to 200-300 nm even without high-speed homogenizing. The drug **release** behavior from nanospheres suspended in buffered solution exhibited a biphasic pattern. The initial burst of **release** might be due to the rapid **release** of drugs deposited on the surface and in the water channels of nanospheres. At a later stage, the drug **release** rate was reduced. During the **release** test, PLGA was not degraded for 100 h irresp. of the mol. weight The mol. weight of polymer was a main factor in **controlling** the drug **release** rate from the nanospheres.

ST **glycolide lactide** polymer **controlled** **release** nanosphere; emulsion solvent diffusion polymer **microencapsulation**

IT Solution rate
(of drug, from **glycolide-lactide** nanospheres prepared by emulsion-solvent diffusion method)

IT Polymer degradation
Polymer morphology
(of **glycolide-lactide** copolymer nanospheres)

IT Particle size
(of **glycolide-lactide** copolymer nanospheres, conditions during preparation by emulsion-solvent diffusion method effect on)

IT **Pharmaceutical dosage forms**
(**controlled-release**, nanospheres, **glycolide -lactide** copolymer, preparation by emulsion-solvent diffusion method and properties of)

IT **Encapsulation**
(micro-, with **glycolide-lactide** copolymer, by emulsion-solvent diffusion method)

IT 67-64-1, Acetone, biological studies 67-66-3, Chloroform, biological studies **75-09-2, Dichloromethane**, biological studies 9002-89-5, **Poly**(vinyl alcohol)
RL: BIOL (Biological study)
(in **microencapsulation** with **glycolide-lactides** copolymer by emulsion-solvent diffusion method)

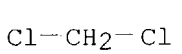
IT 51-21-8, 5-Fluorouracil 53-86-1, Indomethacin
RL: PROC (Process)
(**microencapsulation** of, with **glycolide-lactide** copolymer by emulsion-solvent diffusion method, for **controlled** drug **release**)

IT **26780-50-7P, Glycolide-DL-lactide** copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(nanospheres, preparation by emulsion-solvent diffusion method of biodegradable, for **controlled** drug **release**)

IT **75-09-2, Dichloromethane**, biological studies
RL: BIOL (Biological study)
(in **microencapsulation** with **glycolide-lactides** copolymer by emulsion-solvent diffusion method)

RN 75-09-2 HCAPLUS

CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)

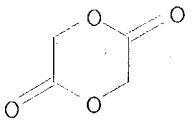


IT **26780-50-7P, Glycolide-DL-lactide** copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)

(nanospheres, preparation by emulsion-solvent diffusion method of biodegradable, for **controlled** drug **release**)
RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

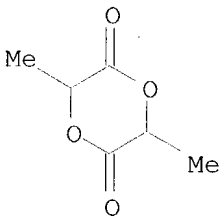
CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

CRN 95-96-5
CMF C6 H8 O4



L115 ANSWER 14 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1993:27476 HCAPLUS
DN 118:27476
ED Entered STN: 24 Jan 1993
TI Swelling agent and biodegradable polymer substances in long-acting pharmaceutical granule preparations
IN Hata, Takehisa; Kagayama, Akira; Kimura, Sumihisa; Ueda, Satoshi; Murata, Saburo
PA Fujisawa Pharmaceutical Co., Ltd., Japan
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM A61K009-14
ICS A61K009-22; A61K009-30; A61K047-34
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9216191	A1	19921001	WO 1992-JP318	19920318 <--
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	EP 576675	A1	19940105	EP 1992-907107	19920318 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	US 5654009	A	19970805	US 1996-635556	19960422 <--
PRAI	JP 1991-132442		19910325 <--		
	WO 1992-JP318		19920318 <--		

US 1993-117164 19930917 <--
US 1994-320787 19941011 <--

AB A long-acting pharmaceutical granular preparation comprises a core part containing a drug and a swelling agent and a coating film containing a biodegradable high-mol. substance, wherein the swelling agent is contained in an amount sufficient to burst the coating film after a given period of time. This preparation allows the duration of drug **release** to be **controlled** arbitrarily and is suitable for not only oral administration but also i.m. and s.c. administration. Thus, powder cytarabine 5 g in 20% gelatin solution (520 mL) was made into beads, which were dried, washed and again dried to give 5% cytarabine-containing gelatin beads. The beads were coated with poly(L-**lactic acid**) in EtOH/**dichloromethane**. Blood cytarabine level stayed high for a long time after administration.

ST long acting pharmaceutical granule polymer gelatin; cytarabine granule **polylactide** coating

IT Polyesters, biological studies
RL: BIOL (Biological study)
(long-acting pharmaceutical granules coating with)

IT Gelatins, biological studies
RL: BIOL (Biological study)
(long-acting pharmaceutical granules manufacture with)

IT Pharmaceutical dosage forms
(granules, long-acting, swelling agents and biodegradable polymers in)

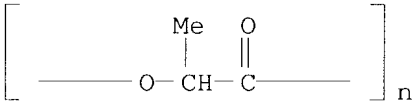
IT 26063-00-3, Poly-β-hydroxybutyric acid **26161-42-2** 26811-96-1 **34346-01-5**, dl-**Lactic acid** **glycolic acid** copolymer
RL: BIOL (Biological study)
(long-acting pharmaceutical granules coating with)

IT 51-21-8, Fluorouracil 147-94-4, Cytarabine
RL: BIOL (Biological study)
(long-acting pharmaceutical granules containing)

IT 9012-76-4, Chitosan 9067-32-7
RL: BIOL (Biological study)
(long-acting pharmaceutical granules manufacture with)

IT **26161-42-2** **34346-01-5**, dl-**Lactic acid** **glycolic acid** copolymer
RL: BIOL (Biological study)
(long-acting pharmaceutical granules coating with)

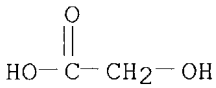
RN 26161-42-2 HCAPLUS
CN Poly[oxy[(1S)-1-methyl-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)



RN 34346-01-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

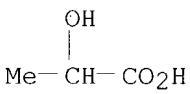
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 50-21-5
CMF C3 H6 O3



L115 ANSWER 15 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:422904 HCAPLUS
DN 117:22904
ED Entered STN: 26 Jul 1992
TI Efficient microcapsule preparation and method of use
IN Wallace, Sidney; Yang, David J.; Wallace, Michael; Kuang, Li Ren; Li, Chun
PA University of Texas System, USA
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM B01J013-06
CC 9-14 (Biochemical Methods)
Section cross-reference(s): 2, 8, 63
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9205866	A2	19920416	WO 1991-US7366	19911002 <--
	WO 9205866	A3	19920529		
	W: AU, CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	US 5238714	A	19930824	US 1990-592020	19901002 <--
	CA 2092551	AA	19920403	CA 1991-2092551	19911002 <--
	AU 9190766	A1	19920428	AU 1991-90766	19911002 <--
	AU 659622	B2	19950525		
	EP 553299	A1	19930804	EP 1992-901967	19911002 <--
	EP 553299	B1	19960417		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 06504716	T2	19940602	JP 1992-501033	19911002 <--
	AT 136811	E	19960515	AT 1992-901967	19911002 <--
PRAI	US 1990-592020	A2	19901002 <--		
	WO 1991-US7366	A	19911002 <--		

AB A highly efficient method is provided for preparing microcapsules suitable for **encapsulation** or surface attachment of therapeutic or diagnostic agents. In 1 aspect, surface charge of the polymeric material is altered by conjugation of an amino acid ester to the polymer, providing improved targeting of **encapsulated** agents to specific tissue cells. The microcapsules are suitable for attachment of a wide range of targeting agents, including antibodies, steroids, and drugs, which may be attached to the microcapsule polymer before or after formation of suitably sized microcapsules. Microcapsules (1 μm) loaded with meglumine diatrizoate were prepared using **polylactic acid** (PLA) and PLA conjugated with phenylalanine as the capsular material; the **microencapsulated** diatrizoate was used for bioimaging in rabbits.

Also described are chemoembolization with e,g, **microencapsulated** cisplatin and the effect of an estrone-poly(benzyl-L-glutamate) conjugate in an in vitro estrogen receptor assay.

ST microcapsule prepn diagnostic therapeutic; imaging diagnostic microcapsule; meglumine diatrizoate microcapsule **polylactic acid**; phenylalanine **polylactate** conjugate microcapsule diatrizoate; chemoembolization microcapsule cisplatin; estrogen receptor estrone polybenzylglutamate conjugate

IT Imaging
(agents for, microcapsule preparation for)

IT Emulsifying agents
Sound and Ultrasound
(in microcapsule preparation for therapeutic or diagnostic)

IT Polymers, uses
RL: SPN (Synthetic preparation); PREP (Preparation)
(in microcapsule preparation for therapeutic or diagnostic)

IT Therapeutics
(microcapsule preparation for)

IT Solvents
(organic, in microcapsule preparation for therapeutic or diagnostic)

IT Diagnosis
(agents, microcapsule preparation for)

IT Amino acids, compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(conjugates, with polymers, for microcapsule preparation for therapeutic or diagnostic)

IT Receptors
RL: SPN (Synthetic preparation); PREP (Preparation)
(estrogen, microcapsule preparation for therapeutic target agent directed to)

IT Magnetic substances
(ferro-, microcapsule preparation for, for diagnostic imaging agent)

IT Pharmaceutical dosage forms
(microcapsules, preparation of, for therapeutic or diagnostic)

IT **Pharmaceutical dosage forms**
(**microcapsules, sustained-release**, preparation of, for chemoembolization)

IT Magnetic substances
(para-, microcapsule preparation for, for diagnostic imaging agent)

IT Estrogens
RL: SPN (Synthetic preparation); PREP (Preparation)
(receptors, microcapsule preparation for therapeutic target agent directed to)

IT 123-03-5, Cetylpyridinium chloride 151-21-3, Sodium laurylsulfate, uses 1338-39-2, Span 20 9002-89-5, Polyvinyl alcohol 9002-93-1, Triton X-100 9005-65-6, Tween-80 52434-01-2, Lubrol
RL: ANST (Analytical study)
(as emulsifier in microcapsule preparation for therapeutic or diagnostic)

IT 56-23-5, Carbon tetrachloride, uses 67-64-1, 2-Propanone, uses 67-66-3, Chloroform, uses **75-09-2, Methylene chloride**, uses 141-78-6, Acetic acid ethyl ester, uses
RL: ANST (Analytical study)
(as solvent in microcapsule preparation for therapeutic or diagnostic)

IT 142062-09-7
RL: ANST (Analytical study)
(estrone-conjugated microcapsules containing, tissue distribution of)

IT 60-18-4D, L-Tyrosine, polymer conjugates 63-68-3D, Methionine, polymer conjugates 63-91-2D, Phenylalanine, polymer conjugates 73-22-3D, Tryptophan, polymer conjugates
RL: ANST (Analytical study)
(for microcapsule preparation for therapeutic or diagnostic)

IT 1676-73-9 9004-58-4, Ethylhydroxyethyl cellulose 25104-18-1, Polylysine 25248-42-4, Poly[oxy(1-oxo-1,6-hexanediyl)] 25248-42-4D,

Poly[oxy(1-oxo-1,6-hexanediyl)], diol derivs. **26009-03-0**, **Polyglycolic acid** 26099-09-2, Polymaleic acid **26100-51-6**, Poly-D,L-**lactic acid**
RL: ANST (Analytical study)
(in microcapsule preparation for therapeutic or diagnostic)

IT **26023-30-3D**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)], phenylalanine conjugates
RL: ANST (Analytical study)
(microcapsule prepared with, for diagnostic or therapeutic)

IT 51-21-8, 5-Fluorouracil 10540-29-1, Tamoxifen 15663-27-1, Cisplatin
RL: ANST (Analytical study)
(microcapsule preparation for, for chemoembolization)

IT 131-49-7, Meglumine diatrizoate
RL: ANST (Analytical study)
(microcapsule preparation for, for diagnostic)

IT 67-43-6D, DTPA, gadolinium complexes 1949-45-7, Metrizoate 2276-90-6 7440-54-2D, Gadolinium, DTPA complexes 59017-64-0 66108-95-0, Iohexol
RL: ANST (Analytical study)
(microcapsule preparation for, for diagnostic imaging)

IT 53-16-7, Estrone, biological studies
RL: ANST (Analytical study)
(microcapsule-attached, microcapsule preparation for, therapeutic directed to estrogen receptor in relation to)

IT 142062-08-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with polybenzyl-L-glutamate, for microcapsule preparation)

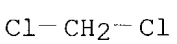
IT 53-16-7DP, Estrone, polybenzyl-L-glutamate conjugates 25014-27-1DP, estrone conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for microcapsule)

IT 689-98-5, Chloroethylamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with estrone)

IT 63-91-2D, Phenylalanine, esters
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with **polylactic acid**, for microcapsule preparation)

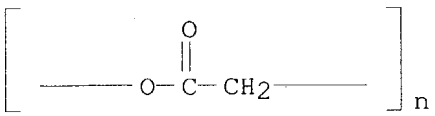
IT **75-09-2**, **Methylene chloride**, uses
RL: ANST (Analytical study)
(as solvent in microcapsule preparation for therapeutic or diagnostic)

RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



IT **26009-03-0**, **Polyglycolic acid** **26100-51-6**, Poly-D,L-**lactic acid**
RL: ANST (Analytical study)
(in microcapsule preparation for therapeutic or diagnostic)

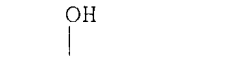
RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



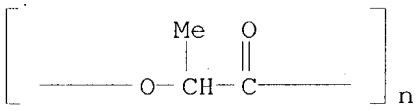
RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 50-21-5
CMF C3 H6 O3



IT **26023-30-3D**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)], phenylalanine conjugates
RL: ANST (Analytical study)
(microcapsule prepared with, for diagnostic or therapeutic)
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



L115 ANSWER 16 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:113531 HCAPLUS
DN 116:113531
ED Entered STN: 20 Mar 1992
TI Solvent systems for production of drug microspheres
IN Yamakawa, Ichiro; Machida, Ryoichi; Watanabe, Sumio
PA Eisai Co., Ltd., Japan
SO Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K009-16
ICS A61K009-51
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 461630	A2	19911218	EP 1991-109610	19910612 <--
	EP 461630	A3	19920401		
	EP 461630	B1	19950913		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 04046115	A2	19920217	JP 1990-152849	19900613 <--
	JP 04046116	A2	19920217	JP 1990-152850	19900613 <--
	JP 06065063	A2	19940308	JP 1991-153830	19910530 <--
	JP 3116311	B2	20001211		
	CA 2044353	AA	19911214	CA 1991-2044353	19910611 <--
	ES 2076412	T3	19951101	ES 1991-109610	19910612 <--
	US 5980947	A	19991109	US 1994-352188	19941201 <--
PRAI	JP 1990-152849	A	19900613 <--		
	JP 1990-152850	A	19900613 <--		
	JP 1991-48579	A	19910222 <--		
	US 1991-713837	B1	19910612 <--		
	US 1993-51272	B1	19930423 <--		

AB Upon incorporation of a drug into microspheres by oil/water solvent

evaporation, a mixed solvent of ≥1 water-insol. solvent and ≥1 water-miscible solvent is used as a solvent of an oil phase. The oil phase may also comprise fatty acids or salts thereof, glycerin fatty acid esters, and propylene glycol fatty acid esters. The resulting microspheres contain the drug at a high concentration and slowly **release** from the initial stage after administration. Thus, neurotensin analog 20 and poly(DL-**lactic acid**) 200 mg were dissolved in 0.6 mL of **methylene chloride**/EtOH (5:1 by volume) and the resulting solution was dispersed in 200 mL of a 0.5 % aqueous solution of PVA. The dispersion was stirred for 3 h to conduct oil/water solvent evaporation so that an oil phase was solidified. Microspheres thus formed were collected by a centrifugal separator and lyophilized into powder. The drug content in the microspheres was 21.5 %, vs. 10.4 % for the **control** microspheres produced in a similar manner except that 0.6 mL of **methylene chloride** was used instead of the mixed solvent.

ST microsphere drug solvent system; neurotensin **polylactic acid** drug microsphere

IT Fibrins
RL: BIOL (Biological study)
(enzyme-modified, organic solvent systems containing, in manufacture of drug-containing microspheres)

IT Albumins, biological studies
Gelatins, biological studies
Polyesters, biological studies
RL: BIOL (Biological study)
(organic solvent systems containing, in manufacture of drug-containing microspheres)

IT Collagens, compounds
RL: BIOL (Biological study)
(crosslinked, organic solvent systems containing, in manufacture of drug-containing microspheres)

IT **Pharmaceutical dosage forms**
(**microspheres, sustained-release**, of water-soluble drugs, solvent systems and additives for manufacture of)

IT Polyethers, biological studies
RL: BIOL (Biological study)
(ortho esters, organic solvent systems containing, in manufacture of drug-containing microspheres)

IT 9002-89-5P, Polyvinyl alcohol
RL: PREP (Preparation)
(emulsifier in manufacture of drug-containing microspheres)

IT 24305-27-9, Thyrotropin-releasing hormone 39379-15-2D, Neurotensin, analogs 74913-18-1D, Dynorphin, analogs
RL: BIOL (Biological study)
(microspheres containing, solvent systems and additives for manufacture of)

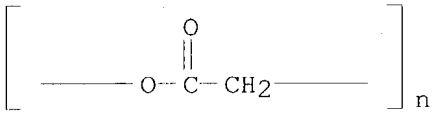
IT 108-31-6D, 2,5-Furandione, copolymers 143-18-0, Potassium oleate 143-19-1, Sodium oleate 156-54-7, Sodium butyrate 408-35-5, Sodium palmitate 629-25-4, Sodium laurate 822-12-8, Sodium myristate 822-16-2, Sodium stearate 822-17-3, Sodium linoleate 822-18-4, Sodium linolenate 1002-62-6, Sodium caprate 1002-82-0 1323-39-3, Propylene glycol monostearate 1330-80-9, Propylene glycol monooleate 1984-06-1, Sodium caprylate 3015-50-7 3398-33-2, Sodium undecylenate 4268-61-5, Sodium nonadecanoate 4268-63-7 6106-41-8, Sodium valerate 6610-25-9, Sodium arachidonate 7757-81-5 9003-01-4, Polyacrylic acid 9003-05-8, Polyacrylamide 9003-53-6, Polystyrene 9004-57-3, Ethyl cellulose 10051-44-2, Sodium caproate 10051-45-3 13257-34-6 14047-60-0, Sodium pelargonate 15802-18-3D, α-Cyanoacrylic acid, esters, polymers 17265-30-4 18175-45-6 25087-26-7, Polymethacrylic acid 25496-72-4,

Glycerin monooleate **26009-03-0**, **Glycolic acid** polymer, SRU **26023-30-3**, **Lactic acid** polymer, SRU **26023-30-3**, Poly(DL-**lactic acid**), SRU 26063-00-3, Poly(β-hydroxybutyric acid) **26100-51-6**, **Lactic acid** polymer **26100-51-6**, Poly(DL-**lactic acid**) **26124-68-5**, **Glycolic acid** polymer **26161-42-2**, Poly(L-**lactic acid**),SRU 26402-22-2, Glycerin monocaprate 26402-26-6, Glycerin monocaprylate 26657-96-5, Glycerin monopalmitate 26744-04-7, Poly(β-hydroxybutyric acid),SRU 26811-96-1, Poly(L-**lactic acid**) 27194-74-7, Propylene glycol monolaurate 27214-38-6, Glycerin monomyristate 27215-38-9, Glycerin monolaurate 29013-28-3, Propylene glycol monopalmitate 29059-24-3, Propylene glycol monomyristate 31565-12-5, Propylene glycol monocaprylate 31566-31-1, Glycerin monostearate 68795-69-7, Propylene glycol monocaprate 139256-95-4, Sodium isocrotonate
RL: BIOL (Biological study)
(organic solvent systems containing, in manufacture of drug-containing microspheres)

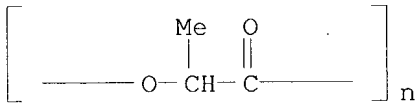
IT 56-23-5, biological studies 64-17-5, Ethanol, biological studies 67-56-1, Methanol, biological studies 67-63-0, Isopropanol, biological studies 67-66-3, Chloroform, biological studies 67-68-5, Dimethylsulfoxide, biological studies 71-23-8, 1-Propanol, biological studies 75-05-8, Acetonitrile, biological studies **75-09-2**, **Methylene chloride**, biological studies 110-82-7, Cyclohexane, biological studies 141-78-6, Ethyl acetate, biological studies 1300-21-6, Dichloroethane
RL: BIOL (Biological study)
(solvent systems containing, in manufacture of pharmaceutical microspheres)

IT **26009-03-0**, **Glycolic acid** polymer, SRU
26023-30-3, **Lactic acid** polymer, SRU
26100-51-6, **Lactic acid** polymer
26124-68-5, **Glycolic acid** polymer
26161-42-2, Poly(L-**lactic acid**),SRU
RL: BIOL (Biological study)
(organic solvent systems containing, in manufacture of drug-containing microspheres)

RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)

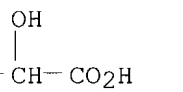


RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 50-21-5

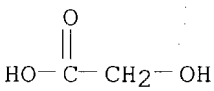
CMF C3 H6 O3



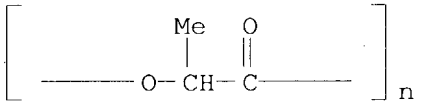
RN 26124-68-5 HCAPLUS
CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

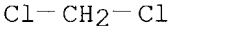
CRN 79-14-1
CMF C2 H4 O3



RN 26161-42-2 HCAPLUS
CN Poly[oxy[(1S)-1-methyl-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)



IT **75-09-2, Methylene chloride**, biological studies
RL: BIOL (Biological study)
(solvent systems containing, in manufacture of pharmaceutical microspheres)
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



L115 ANSWER 17 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:11224 HCAPLUS
DN 116:11224
ED Entered STN: 11 Jan 1992
TI Biocompatible microspheres for the **controlled release** of water-soluble substances and process for preparing them
IN Wantier, Henri; Mathieu, Fabienne; Baudrihaye, Marc; Delacroix, Dominique
PA Medgenix Group S. A., Belg.
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA French
IC ICM B01J013-12
ICS A61K009-52
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9112882	A1	19910905	WO 1991-EP307	19910218 <--

W: CA, JP, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE

	FR 2658432	A1	19910823	FR 1990-2189	19900222	<--
	CA 2053913	AA	19910823	CA 1991-2053913	19910218	<--
	CA 2053913	C	20010403			
	EP 469110	A1	19920205	EP 1991-903868	19910218	<--
	EP 469110	B1	19940727			

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE

	JP 04505420	T2	19920924	JP 1991-503979	19910218	<--
	US 5478564	A	19951226	US 1993-77501	19930617	<--
	US 5609886	A	19970311	US 1995-507079	19950726	<--
PRAI	FR 1990-2189	A	19900222	<--		
	WO 1991-EP307	W	19910218	<--		
	US 1991-768701	B1	19911022	<--		
	US 1991-810403	B1	19911223	<--		
	US 1993-77501	A3	19930617	<--		

AB The title compns. comprise a water soluble peptide and a biocompatible and biodegradable polymer **controlling** the **release** kinetics of the peptide, consisting of a matrix of the polymer within which the water-soluble peptide is evenly dispersed. **Lactic acid-glycolic acid** copolymer was dissolved in CH2Cl2 and mixed with a solution of salmon calcitonin in dimethylacetamide; then the mixture was added to a phosphate buffer containing 4% gelatin. The solvents then evaporated and the emulsion was diluted with water, and filtered to obtain microcapsules of 25-200 mμ.

ST microcapsule **controlled release** polymer peptide; calcitonin **lactic** glycolic copolymer microcapsule

IT Interferons
Peptides, biological studies
RL: BIOL (Biological study)
(**controlled-release** pharmaceutical microcapsules containing **lactic acid-glycolic acid** copolymer and)

IT Lymphokines and Cytokines
RL: BIOL (Biological study)
(interleukin 2, **controlled-release** pharmaceutical microcapsules containing **lactic acid-glycolic acid** copolymer and)

IT Lymphokines and Cytokines
RL: BIOL (Biological study)
(interleukin 4, **controlled-release** pharmaceutical microcapsules containing **lactic acid-glycolic acid** copolymer and)

IT Lymphokines and Cytokines
RL: BIOL (Biological study)
(interleukin 6, **controlled-release** pharmaceutical microcapsules containing **lactic acid-glycolic acid** copolymer and)

IT **Pharmaceutical dosage forms**
(**microcapsules, controlled-release**, of polypeptides containing **lactic acid-glycolic acid** copolymer)

IT Lymphokines and Cytokines
RL: BIOL (Biological study)
(tumor necrosis factor, **controlled-release** pharmaceutical microcapsules containing **lactic acid-glycolic acid** copolymer and)

IT 64-17-5, Ethanol, biological studies **75-09-2, Dichloromethane**, biological studies 127-19-5, Dimethylacetamide
RL: BIOL (Biological study)
(as solvent in preparation of **controlled-release** polypeptide microcapsules)

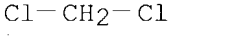
IT 9002-64-6, PTH 9002-72-6, Growth hormone 9004-10-8, Insulin,

biological studies 9007-12-9, Calcitonin 9007-12-9D, Calcitonin, analogs 9034-39-3, Somatoliberin 9034-40-6, Luteinizing hormone **releasing** hormone 11096-26-7, Erythropoietin 51110-01-1, Somatostatin 67763-96-6, Insulin-like growth factor I 83869-56-1, Colony-stimulating factor 2 85637-73-6, Atrial natriuretic factor 105913-11-9, Plasminogen activator
RL: BIOL (Biological study)
(**controlled-release** pharmaceutical microcapsules containing **lactic acid-glycolic acid** copolymer and)

IT **34346-01-5, Lactic acid-glycolic acid** copolymer
RL: BIOL (Biological study)
(pharmaceutical matrix containing, for **controlled-release** polypeptide microcapsules)

IT **75-09-2, Dichloromethane**, biological studies
RL: BIOL (Biological study)
(as solvent in preparation of **controlled-release** polypeptide microcapsules)

RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)

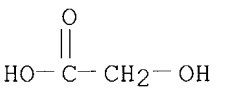


IT **34346-01-5, Lactic acid-glycolic acid** copolymer
RL: BIOL (Biological study)
(pharmaceutical matrix containing, for **controlled-release** polypeptide microcapsules)

RN 34346-01-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

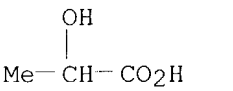
CM 1

CRN 79-14-1
CMF C2 H4 O3



CM 2

CRN 50-21-5
CMF C3 H6 O3



L115 ANSWER 18 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:104867 HCAPLUS
DN 112:104867
ED Entered STN: 18 Mar 1990

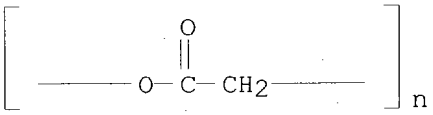
TI Manufacture of slow-release pharmaceuticals for treatment of Candida infection in the vagina
IN Azuma, Seiji; Mitani, Yoko; Suenaga, Fumiyo
PA Rohto Pharmaceutical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K047-00
ICS A61K009-02; A61K009-06; A61K009-70
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01071823	A2	19890316	JP 1987-229251	19870912 <--
PRAI JP 1987-229251		19870912 <--		

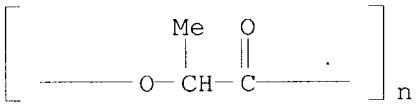
AB A slow-**release** pharmaceutical for treatment of Candida infection in the vagina is prepared by dispersing a mixture of pharmaceutical and carrier in a water-soluble polymer. This formulation adheres firmly to the vaginal tissue and **releases** the pharmaceutical in a **controlled** manner. Thus, **poly(lactic acid)** 10, clotrimazole 2, and **methylene chloride** 100 parts by weight were dissolved, made into a sheet, and pulverized (average particle diameter 100 μm). This powder 10 and hydroxypropyl cellulose 10 parts by weight were mixed and made into a rod-shape medication (diam 6 mm and length 3 cm).

ST Candida pharmaceutical polymer vagina; fungicide Candida vagina
IT Candida
(infection with, slow-release pharmaceuticals for treatment of, in vagina)
IT Vagina
(Candida infection in, slow-release pharmaceuticals for treatment of)
IT Fungicides and Fungistats
(medical, Candida infection treatment with, in vagina)
IT **Pharmaceutical dosage forms**
(**slow-release**, fungicides and polymers in, for treatment of Candida infection in vagina)
IT 9000-65-1, Tragacanth gum 9002-89-5, Poly(vinyl alcohol) 9003-01-4, Poly(acrylic acid) 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl cellulose sodium 9004-35-7, Cellulose acetate 9004-57-3, Ethyl cellulose 9004-62-0, Hydroxyethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropyl methyl cellulose 9004-67-5, Methyl cellulose 9005-37-2, Propylene glycol alginate 9005-38-3, Sodium alginate 9012-76-4, Chitosan 9057-02-7, Pullulan 11138-66-2, Xanthan gum 25087-26-7, Poly(methacrylic acid) 108188-68-7 25322-68-3, Polyethylene oxide
RL: BIOL (Biological study)
(pharmaceutical containing, slow-release, for Candida infection treatment in vagina)
IT 124-04-9, Adipic acid, biological studies 24980-41-4, Poly(ε-caprolactone) 25248-42-4, Poly[oxy(1-oxo-1,6-hexanediyl)]
26009-03-0, Poly(glycolic acid)
26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]
26100-51-6, Poly(lactic acid)
26124-68-5, Poly(glycolic acid)
32474-74-1, **Poly**(tetramethyl **glycolide**) 112832-41-4
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceuticals containing, slow-release, for treatment of Candida infection in vagina)
IT 1394-02-1, Trichomycin 1397-89-3, Amphotericin B 1400-61-9, Nystatin 7681-93-8, Pimaricin 22916-47-8, Miconazole 23593-75-1, Clotrimazole 27220-47-9 27523-40-6, Isoconazole
RL: BIOL (Biological study)

(Candida infection treatment with, in vagina)
IT **26009-03-0, Poly(glycolic acid)**
26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]
26100-51-6, Poly(lactic acid)
26124-68-5, Poly(glycolic acid)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceuticals containing, slow-release, for treatment of Candida infection in vagina)
RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



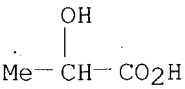
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

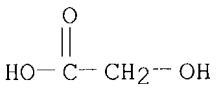
CRN 50-21-5
CMF C3 H6 O3



RN 26124-68-5 HCAPLUS
CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-14-1
CMF C2 H4 O3



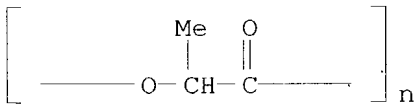
L115 ANSWER 19 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:84203 HCAPLUS
DN 112:84203
ED Entered STN: 03 Mar 1990
TI Manufacture of slow-release pharmaceutical microgranules
IN Machida, Minoru; Arakawa, Masayuki

PA Chugai Pharmaceutical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K009-14
ICS A61K047-00
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01156912	A2	19890620	JP 1988-234758	19880921 <--
	JP 2837675	B2	19981216		
PRAI	JP 1987-236248		19870922 <--		

AB The title pharmaceuticals contain biodegradable and biocompatible polymers (e.g. **polylactic acid**), pharmacol. active substances, and natural polysaccharides (e.g. chitin). The pharmacol. active substances are insol. or sparingly soluble organic compds., proteins, or peptides. Thus, dl-**lactic acid-glycolic acid** copolymer in **methylene chloride** -n-propanol was mixed with granulocyte colony-stimulating factor in the same solvent system. To this was added 1% hyaluronic acid to form microspheres (particle size <100 μm).
ST slow release pharmaceutical microsphere; colony stimulating factor microsphere; polysaccharide polymer pharmaceutical microsphere
IT Polysaccharides, biological studies
RL: BIOL (Biological study)
(in slow-release pharmaceutical microsphere manufacture)
IT Peptides, biological studies
Proteins, biological studies
RL: BIOL (Biological study)
(slow-release pharmaceutical microspheres containing, biodegradable polymers and polysaccharides in)
IT **Pharmaceutical dosage forms**
(microgranules, **slow-release**, biodegradable polymers and polysaccharides in)
IT Interferons
RL: BIOL (Biological study)
(α, slow-release pharmaceutical microspheres containing, biodegradable polymers and polysaccharides in)
IT Interferons
RL: BIOL (Biological study)
(γ, slow-release pharmaceutical microspheres containing, biodegradable polymers and polysaccharides in)
IT 62683-29-8, Colony-stimulating factor
RL: BIOL (Biological study)
(granulocyte, slow-release pharmaceutical microspheres containing, biodegradable polymers and polysaccharides in)
IT 1398-61-4, Chitin 9000-69-5, Pectin 9004-53-9, Dextrin 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9007-28-7 9012-76-4, Chitosan **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6**, Poly(dl-**lactic acid**) **26100-51-6, Polylactic acid** **26124-68-5 34346-01-5** 52352-27-9, Polyhydroxybutyric acid 122038-63-5 125395-71-3 125395-72-4
RL: BIOL (Biological study)
(in slow-release pharmaceutical microsphere manufacture)
IT 3737-09-5 65141-46-0, Nicorandil
RL: BIOL (Biological study)
(slow-release pharmaceutical microspheres containing, biodegradable polymers and polysaccharides in)
IT **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]
26100-51-6, Poly(dl-**lactic acid**)

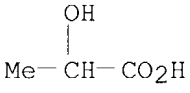
26124-68-5 34346-01-5
RL: BIOL (Biological study)
(in slow-release pharmaceutical microsphere manufacture)
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

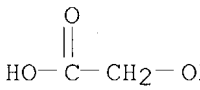
CRN 50-21-5
CMF C3 H6 O3



RN 26124-68-5 HCAPLUS
CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

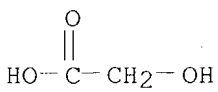
CRN 79-14-1
CMF C2 H4 O3



RN 34346-01-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

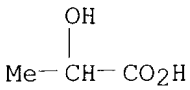
CM 1

CRN 79-14-1
CMF C2 H4 O3



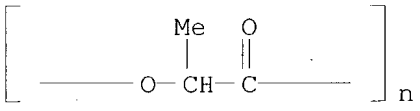
CM 2

CRN 50-21-5
CMF C3 H6 O3



L115 ANSWER 20 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:25497 HCAPLUS
DN 112:25497
ED Entered STN: 21 Jan 1990
TI In vitro and in vivo degradation of **poly**(DL-**lactide**/**glycolide**) type microspheres made by solvent evaporation method
AU Spenlehauer, G.; Vert, M.; Benoit, J. P.; Boddaert, A.
CS Cent. Rech. Croix de Berny, Rhone-Poulec Sante, Antony, 92165, Fr.
SO Biomaterials (**1989**), 10(8), 557-63
CODEN: BIMADU; ISSN: 0142-9612
DT Journal
LA English
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1, 35, 36
AB Microspheres of different poly(α-hydroxy acids) were prepared by solvent evaporation to study the effects of γ-sterilization on stability and to establish the degradation process in vitro and in vivo. γ-Irradiation dramatically decreases polymer mol. weight and this degradation continues on storage. γ-Irradiation modifies the **controlled-release** pattern of cisplatin-loaded microspheres. After embolization of rat livers by microspheres, a histol. study of the inflammatory response was made, along with gel permeation chromatog. anal. of degrading polymers. The degradation rate of the polymers increased with the glycolic unit content in the **lactic** chains. SEM of microsphere degradation in vitro correlated with the former observations.
ST **polylactide glycolide** microsphere degrdn; gamma irradn **polylactide glycolide** degrdn; sterilization gamma irradn microsphere degrdn; **controlled release polylactide glycolide** microsphere
IT Liver
(embolization of, by **poly**(**lactic acid**-co-**glycolic acid**) **controlled-release** microspheres containing cisplatin, polymer degradation in relation to)
IT Sterilization and Disinfection
(gamma-irradiation, of **poly**(**lactic acid**-co-**glycolic acid**) **controlled-release** microspheres, polymer degradation in relation to)
IT Solution rate
(of cisplatin, from **poly**(**lactic acid**-co-**glycolic acid**) **controlled-release** microspheres, λ-irradiation sterilization effect on)
IT Polymer morphology
(**poly**(**lactic acid**-co-**glycolic acid**) **controlled-release** microspheres degradation in relation to)
IT Gamma ray, biological effects
(sterilization by, of **poly**(**lactic acid**-co-**glycolic acid**) **controlled-release** microspheres, polymer degradation in relation to)
IT Polymer degradation
(biochem., of **poly**(**lactic acid**-co-**glycolic acid**), for **controlled-release** microspheres, λ-irradiation sterilization effect on)
IT Embolism
(embolization, of liver, by **poly**(**lactic acid**-co-**glycolic acid**) **controlled-release** microspheres containing cisplatin, polymer degradation in

relation to)
IT Polyesters, biological studies
RL: BIOL (Biological study)
(**glycolic acid-lactic acid**, **controlled-release** microspheres, degradation of, λ-irradiation sterilization effect on)
IT Polyesters, biological studies
RL: BIOL (Biological study)
(**lactic acid**, **controlled-release** microspheres, degradation of, λ-irradiation sterilization effect on)
IT **Encapsulation**
(micro-, of cisplatin, by **poly**(**lactic acid**-co-**glycolic acid**), for **controlled** drug **release**, solvent evaporation in)
IT **Pharmaceutical dosage forms**
(**microspheres**, **controlled-release**, **poly**(**lactic acid**-co-**glycolic acid**), degradation of, λ-irradiation sterilization effect on)
IT Polymer degradation
(radiochem., of **poly**(**lactic acid**-co-**glycolic acid**), for **controlled-release** microspheres, in sterilization)
IT **26023-30-3** **26100-51-6**, Poly(DL-**lactic acid**) **34346-01-5**
RL: BIOL (Biological study)
(**controlled-release** microspheres, degradation of, λ-irradiation sterilization effect on)
IT 15663-27-1, Cisplatin
RL: BIOL (Biological study)
(**poly**(**lactide-co-glycolide**) **controlled-release** microspheres containing, degradation of, λ-irradiation sterilization effect on)
IT **75-09-2**, **Dichloromethane**, uses and miscellaneous
RL: USES (Uses)
(solvent, **poly**(**lactic acid**-co-**glycolic acid**) microspheres degradation in relation to residual)
IT **26023-30-3** **26100-51-6**, Poly(DL-**lactic acid**) **34346-01-5**
RL: BIOL (Biological study)
(**controlled-release** microspheres, degradation of, λ-irradiation sterilization effect on)
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

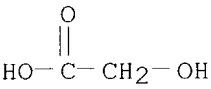
CM 1

CRN 50-21-5
CMF C3 H6 O3

RN 34346-01-5 HCAPLUS
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

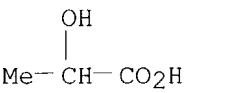
CM 1

CRN 79-14-1
CMF C2 H4 O3

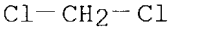


CM 2

CRN 50-21-5
CMF C3 H6 O3



IT **75-09-2, Dichloromethane,** uses and miscellaneous
RL: USES (Uses)
(solvent, **poly(lactic acid-co-glycolic acid)** microspheres degradation in relation to residual)
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



L115 ANSWER 21 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1989:82515 HCAPLUS
DN 110:82515
ED Entered STN: 04 Mar 1989
TI Sustained-release implant for administering growth hormones
IN Shalati, Mohamad D.; Viswanathan, Ravi
PA International Minerals and Chemical Corp., USA
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
IC A61K015-00; A61K021-00; A61K009-22
ICM A61K009-00
NCL 424468000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 2
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4761289	A	19880802	US 1986-917771	19861010 <--
	EP 326727	A1	19890809	EP 1988-300876	19880202 <--
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
PRAI	US 1986-917771		19861010 <--		

AB The title implants are prepared by dispersing a water-diffusible solid in a solution of a nonaq. solvent and a substantial water-insol. polymer, removing the nonaq. solvent to substantially dry the mixture, comminuting the dry mixture to form particles, and pressing the particles together to form a pellet. Bovine growth hormone (800 mg) was suspended in .apprx.1.7 g CH2Cl2 solution containing 141 mg of **poly(lactic acid**) (mol. weight 15,600), the solvent evaporated under vacuum at room temperature, 106 mg samples of material pressed into tablets, and the tablets coated with **poly(lactic acid**) and polycaprolactone.

ST sustained release growth hormone implant; bovine growth hormone sustained release

IT Epoxy resins, biological studies
Polyamides, biological studies
Polycarbonates, biological studies
Polyesters, biological studies
Polysulfones, biological studies
Siloxanes and Silicones, biological studies
Urethane polymers, biological studies
RL: BIOL (Biological study)
(sustained-release pellet containing growth hormone and, as implant)

IT Ethers, polymers
RL: BIOL (Biological study)
(alkyl vinyl, polymers, sustained-release pellet containing growth hormone and, as implant)

IT **Pharmaceutical dosage forms**
(**implants, sustained-release**, polymer matrix for)

IT Alkenes, polymers
RL: BIOL (Biological study)
(polymers, chlorosulfonated, sustained-release pellet containing growth hormone and, as implant)

IT 9004-70-0, Cellulose nitrate
RL: BIOL (Biological study)
(biocompatible, sustained-release pellet containing growth hormone and, as implant)

IT 25322-68-3, Polyethylene oxide
RL: USES (Uses)
(crosslinked, sustained-release pellet containing growth hormone and, as implant)

IT **75-09-2, Methylene chloride**, uses and miscellaneous
RL: USES (Uses)
(solvent, for sustained-release growth hormone implant pellet manufacture)

IT 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone
RL: BIOL (Biological study)
(sustained-release pellet containing bioactive protein and, as implant)

IT 534-15-6 9002-86-2, Polyvinyl chloride 9003-20-7, Polyvinyl acetate 9003-53-6, Polystyrene 9003-54-7, Acrylonitrile styrene copolymer 9004-38-0, Cellulose acetate phthalate 9004-39-1, Cellulose acetate propionate 9012-09-3, Cellulose triacetate 9017-80-5, Polyvinylbenzyltrimethylammonium chloride 9032-35-3, Cellulose acetate succinate 9035-69-2, Cellulose diacetate 9040-62-4, Amylose triacetate 9041-69-4, Cellulose acetate p-toluene sulfonate 24981-14-4, Polyvinyl fluoride 25232-42-2, Polyvinylimidazole **26009-03-0**, Poly[oxy(1-oxo-1,2-ethanediyl)] **26124-68-5, Polyglycolic acid** 39382-07-5, Cellulose acetate chloroacetate 62744-35-8,

Poly(sodium styrene sulfonate) 63340-54-5, β-Glucan triacetate 97089-04-8, Cellulose acetate ethyl carbamate 97089-05-9, Cellulose acetate methyl carbamate 116243-80-2 118440-35-0 118440-58-7 118440-59-8 118440-60-1 118440-61-2 118441-60-4 118441-64-8
RL: BIOL (Biological study)
(sustained-release pellet containing growth hormone and, as implant)

IT 9004-35-7D, esters, ethers 9004-62-0D, Hydroxyethyl cellulose, acetylated
RL: BIOL (Biological study)
(sustained-release pellets containing growth hormone and, as implants)

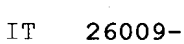
IT 9001-63-2, Lysozyme 9002-72-6, Somatotropin 37267-05-3, Ovine growth hormone 66419-50-9, Bovine growth hormone
RL: BIOL (Biological study)
(sustained-release pellets containing, for implantation)

IT 24937-78-8, Ethylene-vinyl acetate copolymer
RL: BIOL (Biological study)
(sustained-release tablet containing bioactive protein and, as implant)

IT **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6, Polylactic acid**
RL: BIOL (Biological study)
(sustained-release tablet containing growth hormone and, as implant)

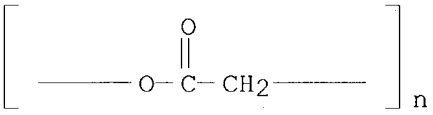
IT **75-09-2, Methylene chloride**, uses and miscellaneous
RL: USES (Uses)
(solvent, for sustained-release growth hormone implant pellet manufacture)

RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



IT **26009-03-0**, Poly[oxy(1-oxo-1,2-ethanediyl)] **26124-68-5, Polyglycolic acid**
RL: BIOL (Biological study)
(sustained-release pellet containing growth hormone and, as implant)

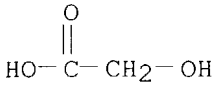
RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



RN 26124-68-5 HCAPLUS
CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

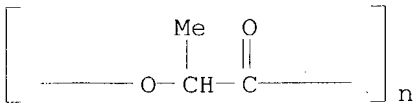
CM 1

CRN 79-14-1
CMF C2 H4 O3



IT **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6, Polylactic acid**
RL: BIOL (Biological study)

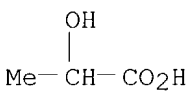
(sustained-release tablet containing growth hormone and, as implant)
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

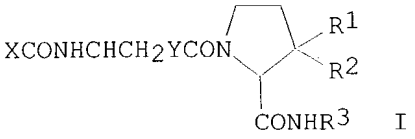
CRN 50-21-5
CMF C3 H6 O3



L115 ANSWER 22 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1988:516065 HCAPLUS
DN 109:116065
ED Entered STN: 01 Oct 1988
TI **Encapsulation** of thyrotropin-releasing hormone or its analog
IN Heya, Toshiro; Okada, Hiroaki; Ogawa, Yasuaki
PA Takeda Chemical Industries, Ltd., Japan
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K009-52
ICS A61K037-43
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE	
PI	EP 256726	A2	19880224		EP 1987-306794	19870731	<--
	EP 256726	A3	19880420				
	EP 256726	B1	19921007				
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE						
	JP 63233926	A2	19880929		JP 1987-173523	19870710	<--
	JP 2526589	B2	19960821				
	CA 1300011	A1	19920505		CA 1987-543516	19870731	<--
	AT 81288	E	19921015		AT 1987-306794	19870731	<--
	FI 8800511	A	19890111		FI 1988-511	19880204	<--
	NO 8800502	A	19890111		NO 1988-502	19880204	<--
	HU 52700	A2	19900828		HU 1988-530	19880204	<--
	HU 203479	B	19910828				
	US 5652220	A	19970729		US 1995-416518	19950404	<--
PRAI	JP 1986-187467		19860808	<--			
	JP 1987-173523		19870710	<--			
	US 1987-73741		19870715	<--			
	EP 1987-306794		19870731	<--			
	US 1989-332373		19890403	<--			
	US 1992-882255		19920508	<--			
	US 1993-62144		19930517	<--			

OS MARPAT 109:116065
GI



I

AB Microcapsules containing polymers and TRH analogs (I; X = 4-, 5-, or 6-membered heterocyclic group; Y = imidazol-4-yl, 4-hydroxyphenyl; R1, R2 = H, lower alkyl; R3 = H, optionally substituted aralkyl) and their salts, are prepared to achieve a sustained-release of the active ingredients. TRH dissolved in water was added to a solution of **lactic acid -glycolic acid** copolymer in **dichloromethane** to give a TRH concentration at 2.5-15 % by weight relative to the copolymer and the mixture was stirred. The emulsion thus obtained was cooled to 18°, poured to an aqueous solution of PVA and the whole was mixed to give a water/oil/water emulsion. The internal water/oil emulsion was allowed to solidify by evaporating the solvent and the solid phase was dispersed in water. The microcapsules collected were freeze-dried and subjected to tests for the measurement of drug trapping rate and dissoln. rate; the drug trapping rate for the microcapsules containing TRH at 7.5 % by weight relative to the copolymer was 95.9% and initial drug release was 8.8%.

ST microcapsule TSH releasing hormone polymer

IT Gelatins, biological studies
RL: BIOL (Biological study)
(dispersing agent in emulsification for **microencapsulation** of peptides)

IT Fatty acids, esters
RL: BIOL (Biological study)
(esters, polymers, sustained-release pharmaceutical capsules containing peptides and)

IT **Pharmaceutical dosage forms**
(**microcapsules, sustained-release**, of peptides, polymers in)

IT Polyethers, biological studies
RL: BIOL (Biological study)
(ortho esters, sustained-release pharmaceutical capsules containing peptides and)

IT 9002-89-5, Polyvinyl alcohol 9004-32-4, Carboxymethyl cellulose
RL: BIOL (Biological study)
(dispersing agent in emulsification for **microencapsulation** of peptides)

IT 24305-27-9, TRH 25575-91-1 62305-86-6, CG 3509 77026-81-4, DN 1417
RL: BIOL (Biological study)
(sustained-release microcapsules of, polymers in)

IT **34346-01-5, Glycolic acid-lactic acid** copolymer
RL: BIOL (Biological study)
(sustained-release pharmaceutical capsules containing peptides and)

IT **34346-01-5, Glycolic acid-lactic acid** copolymer
RL: BIOL (Biological study)
(sustained-release pharmaceutical capsules containing peptides and)

RN 34346-01-5 HCAPLUS

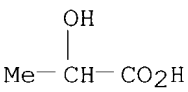
CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA INDEX NAME)

CM 1

CRN 79-14-1
CMF C2 H4 O3

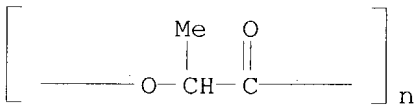
CM 2

CRN 50-21-5
CMF C3 H6 O3

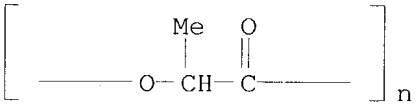


L115 ANSWER 23 OF 23 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1986:74936 HCAPLUS
DN 104:74936
ED Entered STN: 08 Mar 1986
TI Preparation of injectable **controlled-release** microcapsules by a solvent-evaporation process
AU **Tice, Thomas R.**; Gilley, Richard M.
CS Microencapsulation Div., South. Res. Inst., Birmingham, AL, 35255-5305, USA
SO Journal of Controlled Release (**1985**), 2, 343-52
CODEN: JCREEC; ISSN: 0168-3659
DT Journal
LA English
CC 63-5 (Pharmaceuticals)
AB Solvent-evaporation is useful for the **microencapsulation** of water-soluble and water-insol. drugs. The process consists of dissolving a water-insol. drug and a polymer in a volatile organic solvent which is immiscible with water and has a b.p. less than that of water, and adding the organic phase to water containing a dispersing agent. The resulting oil-in-water emulsion contains the drug, polymer and solvent in the oil phase. A vacuum is then slowly applied to the stabilized emulsion to remove the volatile solvent. The microcapsules formed after the removal of the solvent are hard, can be isolated by centrifugation and drying. The product is a free-flowing powder consisting of spherical particles. The rate of solvent evaporation should not be too fast as this will disrupt the walls of the microcapsules. The process is suitable for preparing microcapsules <1 μm (for i.v. administration) and for those <100 μg (for i.m. or s.c. administration). Some examples of the drugs **microencapsulated** by polymers are given.
ST **controlled release** microcapsule; solvent evapn **microencapsulation**
IT Albumins
RL: BIOL (Biological study)
(**controlled-release** microcapsules, formation of, by solvent-evaporation)
IT Evaporation
(in preparation of **controlled-release** microcapsules for injections)
IT **Encapsulation**

(micro-, of drugs, by polymers, solvent-evaporation method in)
IT Capsules, pharmaceutical
(micro-, **controlled-release**, solvent evaporation methods for manufacture of injectable)
IT 25038-32-8 **26023-30-3 26161-42-2** 26680-10-4 **26780-50-7** 33135-50-1
RL: BIOL (Biological study)
(**controlled-release** microcapsules, formation of, by solvent-evaporation)
IT **75-09-2**, biological studies
RL: BIOL (Biological study)
(in **microencapsulation** of drugs by evaporation)
IT 57-85-2 68-22-4
RL: BIOL (Biological study)
(**microencapsulation** of, by polymers, solvent-evaporation method in)
IT **26023-30-3 26161-42-2 26780-50-7**
RL: BIOL (Biological study)
(**controlled-release** microcapsules, formation of, by solvent-evaporation)
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



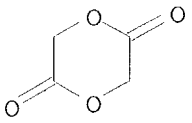
RN 26161-42-2 HCAPLUS
CN Poly[oxy[(1S)-1-methyl-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)



RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

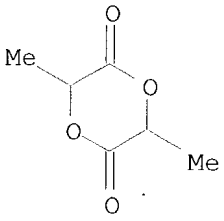
CM 1

CRN 502-97-6
CMF C4 H4 O4

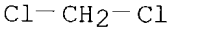


CM 2

CRN 95-96-5
CMF C6 H8 O4



IT **75-09-2**, biological studies
RL: BIOL (Biological study)
(in **microencapsulation** of drugs by evaporation)
RN 75-09-2 HCAPLUS
CN Methane, dichloro- (8CI, 9CI) (CA INDEX NAME)



=> => fil wpix
FILE 'WPIX' ENTERED AT 10:59:26 ON 09 FEB 2004
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FILE LAST UPDATED: 5 FEB 2004 <20040205/UP>
MOST RECENT DERWENT UPDATE: 200409 <200409/DW>
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available in the /ABEX field. An additional search field
/BIX is also provided which comprises both /BI and /ABEX <<<

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GUIDES, PLEASE VISIT:
http://thomsonderwent.com/support/userguides/ <<<

>>> ADDITIONAL POLYMER INDEXING CODES WILL BE IMPLEMENTED FROM
DERWENT UPDATE 200403.
THE TIME RANGE CODE WILL ALSO CHANGE FROM 018 TO 2004.
SDIS USING THE TIME RANGE CODE WILL NEED TO BE UPDATED.
FOR FURTHER DETAILS: http://thomsonderwent.com/chem/polymers/ <<<

=> d all abeq tech abex tot l137

L137 ANSWER 1 OF 3 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2003-615263 [58] WPIX
CR 1991-295351 [40]; 1995-199683 [26]; 1996-019737 [02]; 1997-393337 [36];
1998-031704 [03]; 1998-129287 [12]; 1998-347245 [30]; 1998-437043 [37];

2001-396353 [42]; 2003-101718 [09]; 2003-730422 [69]
DNN N2003-489883 DNC C2003-167740
TI Preparation of controlled released microcapsule formulation comprises dissolving drug and mixture of **uncapped** and **end-capped** biocompatible polymer in organic solvent and evaporating solvent.
DC A23 A96 B05 B07 P32
IN SETTERSTROM, J A; VAN HAMONT, J E; VAUGHN, W M
PA (USSA) US SEC OF ARMY
CYC 1
PI US 6528097 B1 20030304 (200358)* 16p A61K009-50 <--
ADT US 6528097 B1 Cont of US 1984-590308 19840316, CIP of US 1995-446149 19950522, Div ex US 1996-675895 19960705, US 2000-716856 20001120
FDT US 6528097 B1 Div ex US 6217911
PRAI US 1996-675895 19960705; US 1984-590308 19840316; US 1995-446149 19950522; US 2000-716856 20001120
IC ICM **A61K009-50**
ICS A61F013-00; A61K031-19
AB US 6528097 B UPAB: 20031027
NOVELTY - Preparation of controlled release microcapsule formulation comprises:

(I) dissolving a non-steroidal, anti-inflammatory drug and a mixture of **uncapped** biocompatible, biodegradable poly(**lactide/glycolide**) polymer and **end-capped** biocompatible, biodegradable poly(**lactide/glycolide**) polymer in an organic solvent;

(II) dispersing the dissolved mixture; and

(III) evaporating the solvent.

DETAILED DESCRIPTION - Preparation of controlled release microcapsule formulation for programmable release of non-steroidal anti-inflammatory drug comprises either:

(1) Process A:

(a) dissolving a non-steroidal, anti-inflammatory drug and a mixture of **uncapped** biocompatible, biodegradable poly(**lactide/glycolide**) polymer and **end-capped** biocompatible, biodegradable poly(**lactide/glycolide**) polymer in a volatile organic solvent;

(b) dispersing the dissolved mixture in an aqueous phase containing emulsion stabilizer; and

(c) evaporating the organic solvent phase to obtain non-steroidal anti-inflammatory drug loaded microsphere; or

(2) Process B:

(a) dissolving a non-steroidal, anti-inflammatory drug and a mixture of **uncapped** biocompatible, biodegradable poly(**lactide/glycolide**) polymer and **end-capped** biocompatible, biodegradable poly(**lactide/glycolide**) polymer in an polar organic solvent;

(b) dispersing the dissolved drug in a non-polar organic phase;

(c) pouring the emulsion into a hydrocarbon solvent; and

(d) extracting the polar organic phase into the hydrocarbon solvent to form microsphere.

An INDEPENDENT CLAIM is also included for the preparation of a controlled release microcapsule formulation for programmable release of a long acting local anesthetic comprising:

(A) dissolving long-acting local anesthetic and a mixture of **uncapped** biocompatible, biodegradable poly(**lactide/glycolide**) polymer and **end-capped** biocompatible, biodegradable poly (**lactide/glycolide**) polymer in a volatile organic solvent;

(B) dispersing the local anesthetic and volatile organic solvent in an aqueous phase containing emulsion stabilizer; and

(C) evaporating the volatile organic solvent to precipitate microspheres of local anesthetic and poly(**lactide/**

glycolide) microspheres.
ACTIVITY - Analgesic; Antiarthritic.
MECHANISM OF ACTION - None given.
USE - For preparing a controlled release microcapsule formulation (claimed) for drugs, e.g. non-steroidal antiinflammatory drug; for treating pain, arthritis.
ADVANTAGE - The composition is burst free and has sustained programmable release of drugs. The drug is evenly distributed through poly(**lactide/glycolide**) matrix.
Dwg.0/10

FS CPI GMPI
FA AB; DCN
MC CPI: A05-E02; A08-S02; A09-A07; A10-E01; A12-V01; B04-C03D; B07-D05; B10-B01A; B10-B02A; B10-B02F; B10-C03; B10-C04B; B10-C04C; B10-D03; **B12-M10A**; **B12-M11E**; B14-C03; B14-C08
TECH UPTX: 20030910
TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Components: The non-steroidal anti-inflammatory drug is selected from ibuprofen, florabioprofen (sic), aspirin, acetaminophen, endocen (sic), toridol (sic), voltren (sic), telecten (sic) and ketoprofen (preferably ketoprofen).
The drug comprises a homogenous solid matrix.
The local anesthetic is selected from tetracaine, lidocaine, etidocaine, carobicaine (sic), xylocaine, marcaine, nesacaine and etiod (preferably lidocaine).

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: The biodegradable poly(**lactide/glycolide**) polymer comprises a ratio of **lactide** to **glycolide** 100:0 - 50:50 and have a molecular weight of 10-100 kDa.
The **end-capped** polymer is hydrophobic and comprises terminal residues functionalized as esters.
The **uncapped** polymer is hydrophilic and comprises terminal residues existing as carboxylic acid.
Polymer comprises a homogenous solid matrix.
ABEX UPTX: 20030910
SPECIFIC COMPOUNDS - The non-steroidal anti-inflammatory drug is ibuprofen, florabioprofen (sic), aspirin, acetaminophen, endocen (sic), toridol (sic), voltren (sic), telecten (sic) and ketoprofen.
The local anesthetic is tetracaine, lidocaine, etidocaine, carobicaine (sic), xylocaine, marcaine, nesacaine and etiod.

ADMINISTRATION - The composition is administered locally (claimed) or systemically.

EXAMPLE - Ketoprofen and poly(DL-**lactide-coglycolide**) (PLGA) were dissolved in **methylene chloride** and dispersed in an aqueous phase containing an emulsion stabilizer. Evaporation of the organic phase gave ketoprofen-loaded microspheres. The microspheres released ketoprofen for 2 weeks to 2 months with minimal burst release.

L137 ANSWER 2 OF 3 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 1998-437043 [37] WPIX
CR 1991-295351 [40]; 1995-199683 [26]; 1996-019737 [02]; 1997-393337 [36]; 1998-031704 [03]; 1998-129287 [12]; 1998-347245 [30]; 2001-396353 [42]; 2003-101718 [09]; 2003-615263 [58]; 2003-730043 [69]; 2003-730422 [69]
DNC C1998-132804
TI New burst-free, sustained, programmable release composition(s) - containing an active material in a blend of **uncapped** and **end-capped** co polymer, preferably a poly (DL-**lactide**-co **glycolide**).
DC A96 B04 B05 B07 D16 P73

IN BOEDEKER, E C; BROWN, W; CASSELS, F; FRIDEN, P; JACOB, E; JARBOE, D L; JEYANTHI, R; MCQUEEN, C E; REID, R H; ROBERTS, F D; SETTERSTROM, J A; THIES, C; TICE, T R; VAN HAMONT, J E

PA (USSA) US SEC OF ARMY

CYC 79

PI WO 9832427 A1 19980730 (199837)* EN 422p A61K009-52 <--
RW: AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
AU 9863175 A 19980818 (199851)
US 6309669 B1 20011030 (200172) A61K009-52 <--
US 6410056 B1 20020625 (200246)# A61K009-50 <--

ADT WO 9832427 A1 WO 1998-US1556 19980127; AU 9863175 A AU 1998-63175 19980127; US 6309669 B1 Cont of US 1984-590308 19840306, CIP of US 1984-590308 19840316, CIP of US 1992-867301 19920410, CIP of US 1995-446148 19950522, CIP of US 1995-446149 19950522, CIP of US 1996-590973 19960124, US 1997-789734 19970127; US 6410056 B1 CIP of US 1984-590308 19840316, CIP of US 1990-493597 19900315, CIP of US 1994-209350 19940107, US 1995-446148 19950522

FDT AU 9863175 A Based on WO 9832427; US 6309669 B1 CIP of US 5417986

PRAI US 1997-789734 19970127; US 1984-590308 19840306; US 1992-867301 19920410; US 1995-446148 19950522; US 1995-446149 19950522; US 1996-590973 19960124

IC ICM **A61K009-50; A61K009-52**
ICS A61K047-30; B32B005-16

AB WO 9832427 A UPAB: 20031027
A composition is claimed for the burst-free, sustained, programmable release of active material(s) over a period from 1-100 days, comprising: (a) an active material; and (b) a carrier which may contain pharmaceutically-acceptable adjuvant, comprised of a blend of **uncapped** and **end-capped** biodegradable-biocompatible copolymer.

Also claimed are: (1) a process for preparing controlled release compositions characterised by burst-free, sustained, programmable release of biologically active agents, comprising: (a) dissolving biodegradable poly(**lactide/glycolide**), in **uncapped** or **end-capped** form in **methylene chloride**, and dissolving a biologically active agent or active core in water; (b) adding the aqueous layer to the polymer solution and emulsifying to provide an inner water-in-oil (w/o) emulsion; (c) stabilising the w/o emulsion in a solvent-saturated aqueous phase containing a oil-in-water (o/w) emulsifier; (d) adding the w/o emulsion to an external aqueous layer containing o/w emulsifier to form a ternary emulsion; and (e) stirring the resulting water-in-oil-in-water (w/o/w) emulsion to remove the solvent, and rinsing hardened microcapsules with water and lyophilising the hardened microcapsules; (2) a method for the protection against infection of a mammal by pathogenic organisms comprising administering orally to the mammal an immunogenic amount of an immunostimulating composition consisting of an antigenic synthetic peptide encapsulated within a poly(**lactide/galactide**) matrix; (3) a vaccine for the immunisation of a mammal against infection by pathogenic organisms consisting of an antigen in an amount of 0.1-1% encapsulated within a biodegradable-biocompatible polymeric poly(DL-**lactide**-co-**glycolide**) matrix where the polymer is **end-capped** or a blend of **uncapped** and **end-capped** polymers; and (4) an immunostimulating composition comprising encapsulating-microspheres, which may contain an adjuvant, where the microspheres having a diameter of 1 nm to 10 microns are comprised of: (a) a biodegradable-biocompatible poly (DL-**lactide**-co-**glycolide**) as the bulk matrix, where the copolymer (

lactide to **glycolide** L/G) ratio for **uncapped** and **end-capped** polymer is 0/100 to 1/99; and (b) an immunogenic substance comprising a bacteria, virus, fungus, parasite, or derivative, that serves to elicit the production of antibodies in animal subjects.

USE - The biocompatible and biodegradable microspheres can provide programmable sustained release of biologically active agents, including polypeptides over a period of up to 100 days in an aqueous physiological environment with little or no burst release. They can be used for the delivery of e.g. insulins, AZT, diethyl silbestrol, 17-beta-oestradiol, oestron, ethinyl estradiol, mestranol, norethindrone, norgestryl, ethynodiol diacetate, lynoestrenol, medroxyprogesterone acetate, dimethisterone, megestrol acetate, chlormadinine acetate, norgestimate, norethisterone, ethisterone, melentate, norgestimate, norethisterone, ethisterone, melentate, melengestrol, norethynodrel, nonylphenoxypolyoxyethylene glycol, benzethonium chloride, chlorindanol, aluminium hydroxide, calcium carbonate, magnesium carbonate, sodium carbonate, chloropromaquine HCl, clozapine, mesoridazine, metiapine, reserpine, thioridazine, chlordiazepoxide, diazepam, meprobamate, temazepam, codeine, phenobarbital, sodium pentobarbital, sodium secobarbital, testosterone, testosterone propionate, sulphonamides, 4-aminoquinolines, 8-aminoquinolines, pyrimethamine, mazindol. phentermine, L-dopa, atropine, methscopolamine bromide, dextromethorphan, noscapine, Rauwolfia alkaloids, nitroglycerin, organic nitrites, pentaerythriotetranitrate, potassium chloride, ergotamine with and without caffeine, hydrogenated ergot alkaloids, dihydroergocristine methanesulphate, dihydrooergocornine methanesulphonate, dihydroergokroyptine methanesulphate, atropine sulphate, Belladonna, hyoscine hydrobromide, dihydrocodienone, meperidine, morphine, salicylates, asprin, acetaminophen, d-propoxyphene, ceflacor, cefuroxime, chloramphenical, gentamycin, Kanamycin A, Kanamycin B, ampicillin, amoxicillin, streptomycin A, antimycin A, chloropamtheniol, metromidazole, oxytetracycline, penicillin G, minocycline, ciprofloxacin, ofoxacin, clarithromycin, frythromycin (sic), gentamicin, amikacin, tobramycin, kanamycin, ampicillin, polymyxin-B, amphotericin-B, aztrofonam, chloramphenicol, fusidans, lincosamides, metronidazole, nitro-furantion, imipenem/cilastin, quinolones, rifampin, polyenes, sulphonamides, trimethoprim, vancomycin, teicoplanin, imidazoles, mephenytoin, phenobarbital, trimethadione, triethylperazine, chlorophinazine, dimenhydrinate, diphenhydramine, perphenazine, tripelennamine, hydrocortisone, prednisolone, prednisone, allopurinol, indomethacin, phenylbutazone, prostaglandin, thiotepa, chloramucil, cyclophosphamide, melphalan, nitrogen mustard, methotrexate, aztreonam, and refampin.

Dwg.0/54

FS CPI GMPI

FA AB; DCN

MC CPI: A05-E02; A10-E01; A12-V01; B02-P03; B04-B04C; B04-C03D; B04-F09; B04-F10; B04-F11; **B12-M10A**; **B12-M11E**; B14-G01; B14-S11; D05-H07

L137 ANSWER 3 OF 3 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1997-393337 [36] WPIX

CR 1991-295351 [40]; 1995-199683 [26]; 1996-019737 [02]; 1998-031704 [03]; 1998-129287 [12]; 1998-347245 [30]; 1998-437043 [37]; 2001-396353 [42]; 2003-101718 [09]; 2003-615263 [58]; 2003-730043 [69]; 2003-730422 [69]

DNC C1997-126303

TI Microcapsule compositions for burst-free, sustained release of active agents - comprising active agent and blend of **uncapped** and **end-capped** biodegradable poly(**lactide**/**glycolide**).

DC A23 A25 A96 B04 B07

IN FRIDEN, P; JEYANTHI, R; MCQUEEN, C E; REID, R H; ROBERTS, F D; SETTERSTROM, J A; VAN HAMONT, J F

PA (USSA) US SEC OF ARMY
CYC 71
PI WO 9726869 A1 19970731 (199736)* EN 52p A61K009-50 <--
RW: AT BE CH DE DK EA ES FI FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG
W: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN
AU 9714104 A 19970820 (199749)
EP 817619 A1 19980114 (199807) EN
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
NZ 325561 A 19990629 (199931) A61K009-50 <--
JP 11509862 W 19990831 (199946) 40p A61K009-52 <--
KR 98703429 A 19981105 (199954)
MX 9707310 A1 19980601 (200009)
BR 9607752 A 19991130 (200014)
AU 722884 B 20000810 (200043)
NZ 335409 A 20001222 (200104) A61K009-52 <--
CN 1188408 A 19980722 (200270) A61K009-50 <--
ADT WO 9726869 A1 WO 1996-US19440 19961118; AU 9714104 A AU 1997-14104 19961118; EP 817619 A1 EP 1996-944247 19961118, WO 1996-US19440 19961118; NZ 325561 A NZ 1996-325561 19961118, WO 1996-US19354 19961118; JP 11509862 W WO 1996-US19440 19961118, JP 1997-526833 19961118; KR 98703429 A WO 1996-US19440 19961118, KR 1997-706833 19970924; MX 9707310 A1 MX 1997-7310 19970924; BR 9607752 A BR 1996-7752 19961118, WO 1996-US19440 19961118; AU 722884 B AU 1997-14104 19961118; NZ 335409 A Div ex NZ 1996-325561 19961118, NZ 1996-335409 19961118; CN 1188408 A CN 1996-194768 19961118
FDT AU 9714104 A Based on WO 9726869; EP 817619 A1 Based on WO 9726869; NZ 325561 A Based on WO 9726869; JP 11509862 W Based on WO 9726869; KR 98703429 A Based on WO 9726869; BR 9607752 A Based on WO 9726869; AU 722884 B Previous Publ. AU 9714104, Based on WO 9726869; NZ 335409 A Div ex NZ 325561
PRAI US 1996-590973 19960124
REP US 4622244; US 4623588
IC ICM **A61K009-50; A61K009-52**
ICS A61K038-08; A61K038-09; A61K038-10; A61K047-30
AB WO 9726869 A UPAB: 20031027
The following are claimed: (A) a controlled release microcapsule pharmaceutical formulation, for burst-free, sustained, programmable release of a biologically active agent over 1-100 days, comprising an active agent and a blend of **uncapped** and **end-capped** biodegradable poly(**lactide/glycolide**) (PLG). (B) preparing controlled release microcapsule formulations characterised by burst-free, sustained, programmable release of biologically active agents, comprising: (a) dissolving biodegradable PLG, in **uncapped** or **end-capped** form, in **methylene chloride**, and dissolving an active agent or active core in water; (b) adding the aqueous layer to the polymer solution and emulsifying to provide an inner water-in-oil emulsion; (c) stabilising the emulsion in a solvent-saturated aqueous phase containing an oil-in-water emulsifier; (d) adding the water-in-oil emulsion to an external aqueous layer containing oil-in-water emulsifier to form a ternary emulsion; and (e) stirring the resulting water-in-oil-in-water emulsion for sufficient time to remove the solvent, rinsing the hardened microcapsules with water, and lyophilising the microcapsules.

USE - The microcapsules are useful for sustained, burst-free, release of active agents, e.g., polypeptides, over long periods of time.

ADVANTAGE - The microcapsules show high encapsulation efficiency. The carrier polymer is completely degraded to innocuous components. The microcapsules are easily administered via, e.g., oral, parenteral, topical, nasal or vaginal routes.

Dwg.0/7
FS CPI

FA AB; DCN
MC CPI: A05-E02; A07-A03A; A09-A07; A12-V01; **B12-M11E**

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L142 ANSWER 1 OF 6 DPCI COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2003-615263 [58] DPCI
CR 1991-295351 [40]; 1995-199683 [26]; 1996-019737 [02]; 1997-393337 [36]; 1998-031704 [03]; 1998-129287 [12]; 1998-347245 [30]; 1998-437043 [37]; 2001-396353 [42]; 2003-101718 [09]; 2003-730422 [69]
DNN N2003-489883 DNC C2003-167740
TI Preparation of controlled released microcapsule formulation comprises dissolving drug and mixture of uncapped and end-capped biocompatible polymer in organic solvent and evaporating solvent.
DC A23 A96 B05 B07 P32
IN SETTERSTROM, J A; VAN HAMONT, J E; VAUGHN, W M
PA (USSA) US SEC OF ARMY
CYC 1
PI US 6528097 B1 20030304 (200358)* 16p A61K009-50
ADT US 6528097 B1 Cont of US 1984-590308 19840316, **CIP of US 1995-446149 19950522,** Div ex US 1996-675895 19960705, US 2000-716856 20001120
FDT US 6528097 B1 Div ex US 6217911
PRAI US 1996-675895 19960705; US 1984-590308 19840316; US 1995-446149 19950522; US 2000-716856 20001120
IC ICM A61K009-50
ICS A61F013-00; A61K031-19
FS CPI GMPI

EXF EXAMINER'S FIELD OF SEARCH UPE: 20031113

NCL US 6528097 B1 20030304
000/424.422; 000/424.501; 000/514.570

CTCS CITATION COUNTERS

PNC.DI	0	Cited Patents Count (by inventor)
PNC.DX	48	Cited Patents Count (by examiner)
IAC.DI	0	Cited Issuing Authority Count (by inventor)
IAC.DX	2	Cited Issuing Authority Count (by examiner)
PNC.GI	0	Citing Patents Count (by inventor)
PNC.GX	0	Citing Patents Count (by examiner)
IAC.GI	0	Citing Issuing Authority Count (by inventor)
IAC.GX	0	Citing Issuing Authority Count (by examiner)
CRC.I	0	Cited Literature References Count (by inventor)
CRC.X	20	Cited Literature References Count (by examiner)

CDP CITED PATENTS UPD: 20031113

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	PA:	(SYNT) SYNTEX USA INC	
	IN:	KENT, J S; LEWIS, D H; SANDERS, L M; TICE, T R	
		US 3540444	A 1970-84133R/45
	PA:	(SCHB) SCHERER CORP R P	
		US 3773919	A 1971-32146S/19
	PA:	(DUPO) DU PONT DE NEMOURS & CO E I	
		US 3788315	A 1974-10999V/06
	PA:	(LAUR-I) LAURENS S	
		US 4166800	A 1979-68042B/37
	PA:	(SANO) SANDOZ INC	
	IN:	FONG, F W	
		US 4384975	A 1981-95485D/52
	PA:	(SANO) SANDOZ LTD	
	IN:	FONG, J W	
		US 4530840	A 1984-064255/11
	PA:	(STOL-N) STOLLE RES & DEV; (SOUR) SOUTHERN RES INST	
	IN:	BECK, L R; COWSAR, D R; LEWIS, D H; TICE, T R	
		US 4542025	A 1985-248956/40
	PA:	(SOUR) SOUTHERN RES INST; (STOL-N) STOLLE RES & DEV	
	IN:	BECK, L R; COWSAR, D R; LEWIS, D H; TICE, T R	
		US 4585482	A 1986-131060/20
	PA:	(SOUR) SOUTHERN RES INST	
	IN:	GILLEY, R M; MEYERS, W E; SHANNON, W M; TICE, T R	
		US 4622244	A 1986-318526/48
	PA:	(UNIW) UNIV WASHINGTON	
	IN:	LAPKA, G G; MASON, N S; THIES, C	
		US 4637905	A 1987-042802/06
	PA:	(BATT) BATTELLE DEV CORP	
	IN:	GARDNER, D L	
		US 4675189	A 1987-192071/27
	PA:	(SYNT) SYNTEX (USA)	
	IN:	KENT, J S; LEWIS, D H; RICE, T R; SANDERS, L M	
		US 4798786	A 1989-046157/06
	PA:	(STOL-N) STOLLE RES & DEV	
	IN:	MEYERS, W E; TICE, T R	
		US 4835139	A 1987-228660/33
	PA:	(DEBI-N) DEBIOPHARM SA	
	IN:	MAUVERNAY, R Y; ORSOLINI, P; SCHALLY, A V; TICE, T R	
		US 4863735	A 1988-105413/15
	PA:	(MASI) MASSACHUSETTS INST TECHNOLOGY	
	IN:	FOX, J G; KOHN, J B; LANGER, R S; NIEMI, S M	
		US 4897268	A 1989-040741/06
	PA:	(SOUR) SOUTHERN RES INST	
	IN:	GILLEY, R M; TICE, T R	
		US 4938763	A 1990-147718/19
	PA:	(ATRI-N) ATRIX LAB INC; (SOUR) SOUTHERN RES INST; (DUNN-I) DUNN R L	
	IN:	COWSAR, D R; DUNN, R L; ENGLISH, J P; VANDERBILT, D P; VANDERBILT, D D	
		US 4941880	A 1990-245877/32
	PA:	(BIOJ-N) BIOJECT INC	
	IN:	BURNS, M	
		US 5000886	A 1988-339310/48
	PA:	(AMCY) AMERICAN CYANAMID CO	
	IN:	LANZILOTTI, M G; LAWTER, J R	
		US 5019096	A 1989-235738/33
	PA:	(UYCO) UNIV COLUMBIA NEW YORK; (UYCO-N) COLUMBIA UNIV	
	IN:	FOX, C L; MODAK, S M; SAMPATH, L A	

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PA: (DEYL-N) DEY LABS INC;
IN: RAFF, A M; SPERRY, C R
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PA: (BIOJ-N) BIOJECT INC
IN: MCKINNON, C N; NAKAGAWA, T; WILCOX, C E
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PA: (SOUR) SOUTHERN RES INST; (UABR-N) UAB RES FOUND; (UABR-N) UAB RES FOUNDATION
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PA: (DISC-I) DISCKO J J; (DISC-I) DISCKO J
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PA: (HANS-I) HAN S I
IN: HAN, S I
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PA: (AMCY) AMERICAN CYANAMID CO
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PA: (ATRI-N) ATRIX LAB INC; (SOUR) SOUTHERN RES INST; (DUNN-I) DUNN R L
IN: COWSAR, D R; DUNN, R L; ENGLISH, J P; VANDERBILT, D P; VANDERBILT, D D
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PA: (TEXA) UNIV TEXAS SYSTEM
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PA: (INNO-N) INNOVATA BIOMED LTD; (BOYE-I) BOYES R N
IN: BOYES, R N; GILLEY, R M; PLEDGER, K L; TICE, T R
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IN: GILLEY, R M; TICE, T R
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PA: (USSA) US SEC OF ARMY
IN: BOEDEKER, E C; REID, R H; SETTERSTROM, J A; VAN HAMONT, J E
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PA: (CAMB-N) CAMBRIDGE SCI INC
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IN: LANZILOTTI, M G; LAWTER, J R
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PA: (NOVS) NOVARTIS INC; (SANO) SANDOZ LTD
IN: BODMER, D; FONG, J W; KISSEL, T; MAULDING, H V; NAGELE, O; PEARSON, J E
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PA: (GETH) GENENTECH INC
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IN: ELDRIDGE, J H; GILLEY, R M; STAAS, J K; TICE, T R
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PA: (USSA) US SEC OF ARMY
IN: SETTERSTROM, J A; VAN HAMONT, J E; VAUGN, W M

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L142 ANSWER 2 OF 6 DPCI COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2003-101718 [09] DPCI
CR 1991-295351 [40]; 1995-199683 [26]; 1996-019737 [02]; 1997-393337 [36]; 1998-031704 [03]; 1998-129287 [12]; 1998-347245 [30]; 1998-437043 [37]; 2001-396353 [42]; 2003-615263 [58]; 2003-730422 [69]
DNN N2003-081184 DNC C2003-025499
TI Controlled release microcapsule pharmaceutical composition useful in treatment of cancer comprises hydrophobic bioactive agent, blend of end capped and uncapped biocompatible, biodegradable poly(lactide/glycolide) copolymer.
DC A96 B05 B07 D22 P32
IN DUONG, H; JACOB, E; SETTERSTROM, J A; VAN HAMONT, J; VAUGHAN, W; VOOK, N C
PA (USSA) US SEC OF ARMY
CYC 1
PI US 6447796 B1 20020910 (200309)* 40p A61F013-00
ADT US 6447796 B1 CIP of US 1994-242960 19940516, CIP of US 1995-446148 19950522, **CIP of US 1995-446149 19950522**, CIP of US 1996-590973 19960124, CIP of US 1996-675895 19960705, CIP of US 1996-698896 19960816, CIP of US 1997-789734 19970127, US 1997-920326 19970821
FDT US 6447796 B1 CIP of US 5693343, CIP of US 5705197, CIP of US 6217911, CIP of US 6309669
PRAI US 1997-920326 19970821; US 1994-242960 19940516; US 1995-446148 19950522; US 1995-446149 19950522; US 1996-590973 19960124; US 1996-675895 19960705; US 1996-698896 19960816; US 1997-789734 19970127
IC ICM A61F013-00
ICS A61F002-00; A61K009-22; A61K009-32
FS CPI GMPI

EXF EXAMINER'S FIELD OF SEARCH UPE: 20030604

NCL US 6447796 B1 20020910
000/424.422; 000/424.426; 000/424.457; 000/424.468

CTCS CITATION COUNTERS

PNC.DI	0	Cited Patents Count (by inventor)
PNC.DX	47	Cited Patents Count (by examiner)
IAC.DI	0	Cited Issuing Authority Count (by inventor)
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DNC C2001-120531
TI Microcapsule formulation for controlled release of a nonsteroidal antiinflammatory drug includes a mixture of capped and uncapped biocompatible biodegradable lactide/glycolide copolymers.
DC A96 B05
IN SETTERSTROM, J A; VAN HAMONT, J E; VAUGN, W M
PA (USSA) US SEC OF ARMY
CYC 1
PI US 6217911 B1 20010417 (200142)* 16p A61K009-50
ADT US 6217911 B1 **CIP of US 1995-446149 19950522**, US 1996-675895 19960705
PRAI US 1996-675895 19960705; US 1995-446149 19950522
IC ICM A61K009-50
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EXF EXAMINER'S FIELD OF SEARCH UPE: 20010807

NCL US 6217911 B1 20010417
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CTCS CITATION COUNTERS

PNC.DI	0	Cited Patents Count (by inventor)
PNC.DX	51	Cited Patents Count (by examiner)
IAC.DI	0	Cited Issuing Authority Count (by inventor)
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CDP CITED PATENTS UPD: 20010807

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		PA: (SCHB) SCHERER CORP R P	
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		IN: CASSEL, R D; DOUGLAS, C R	

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IC ICM A61K009-50; A61K009-52
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EXF EXAMINER'S FIELD OF SEARCH UPE: 20030131

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CTCS CITATION COUNTERS

PNC.DI	0	Cited Patents Count (by inventor)
PNC.DX	57	Cited Patents Count (by examiner)
IAC.DI	0	Cited Issuing Authority Count (by inventor)
IAC.DX	2	Cited Issuing Authority Count (by examiner)
PNC.GI	0	Citing Patents Count (by inventor)
PNC.GX	7	Citing Patents Count (by examiner)
IAC.GI	0	Citing Issuing Authority Count (by inventor)
IAC.GX	4	Citing Issuing Authority Count (by examiner)
CRC.I	0	Cited Literature References Count (by inventor)
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	PA:	(SYNT) SYNTEX USA INC	
	IN:	KENT, J S; LEWIS, D H; SANDERS, L M; TICE, T R	
		US 4637905	A 1987-042802/06
	PA:	(BATT) BATTELLE DEV CORP	
	IN:	GARDNER, D L	
		US 4675189	A 1987-192071/27
	PA:	(SYNT) SYNTEX (USA)	
	IN:	KENT, J S; LEWIS, D H; RICE, T R; SANDERS, L M	
		US 5198220	A 1991-165976/23
	PA:	(DAMA-I) DAMANI N C; (PROC) PROCTER & GAMBLE CO	
	IN:	DAMANI, N C	
		US 5538739	A 1996-353786/35
	PA:	(SANO) SANDOZ LTD	
	IN:	BODMER, D; FONG, J W; KISSEL, T; MAULDING, H V; NAGELE, O; PEARSON, J E	
		US 5639480	A 1997-332008/30
	PA:	(SANO) SANDOZ LTD; (NOVS) NOVARTIS AG	
	IN:	BODMER, D; FONG, J W; KISSEL, T; MAULDING, H V; NAGELE, O; PEARSON, J E	
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	PA:	(GETH) GENENTECH INC	
	IN:	CLELAND, J L; LIM, A; POWELL, M F	
		US 5688530	A 1992-042911/06
	PA:	(SANO) SANDOZ-ERFINDUNGEN VERW GMBH; (SANO) SANDOZ LTD; (SANO) SANDOZ AG; (PRIK-I) PRIKOSZOVICH W; (NOVS) NOVARTIS AG; (SANO) SANDOZ SA	
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	IN:	DUNN, R L; SOUTHLAND, J L; URHEIM, J E; YEWEY, G L;	

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PA: (ATRI-N) ATRIX LAB INC; (DUNN-I) DUNN R L; (SOUR) SOUTHERN RES INST
IN: COWSAR, D R; DUNN, R L; ENGLISH, J P; VANDERBILT, D P; VANDERBILT, D D
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PA: (CAMB-N) CAMBRIDGE SCI INC
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PA: (AMCY) AMERICAN CYANAMID CO
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PA: (NOVS) NOVARTIS INC; (SANO) SANDOZ LTD
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IN: KENT, J S; LEWIS, D H; SANDERS, L M; TICE, T R
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PA: (UYBO-N) UNIV BOSTON
IN: OPPENHEIM, F G; XU, T

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	PA:	(JERN-I) JERNBERG G R	
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WO 9832427	A A	WO 200050014	A2 2000-587126/52
	PA:	(MYLA-N) MYLAN PHARM INC	
	IN:	ADDICKS, W J; BENSON, K R; DUDA, J P; SNIDER, D A	
WO 9832427	A1	DE 19850445	A1 2000-330249/22
	PA:	(FALK-N) FALK PHARMA GMBH	
	IN:	KIST, M; OTTERBECK, N	
		DE 19916384	A1 2000-673556/62
	PA:	(SCHD) SCHERING AG	
	IN:	ALBAYRAK, C; HOFFMANN, K; TACK, J	
		GB 2354438	A 2001-427248/42
	PA:	(PROC) PROCTER & GAMBLE CO	
	IN:	JAMES, M I; NARINX, E; SPEDER, A E M; STODDART, B; STONEHOUSE, J R	
		US 6274168	B1 2000-587126/52
	PA:	(MYLA-N) MYLAN PHARM INC	
	IN:	ADDICKS, W J; BENSON, K R; DUDA, J P; SNIDER, D A	
		US 6620432	B2 2002-154070/22

PA: (MYLA-N) MYLAN PHARM INC
IN: ADDICKS, W J; BENSON, K R; DUDA, J P; SNIDER, D A

L142 ANSWER 5 OF 6 DPCI COPYRIGHT 2004 THOMSON DERWENT on STN
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CR 1991-295351 [40]; 1992-398530 [48]; 1995-199683 [26]; 1996-019737 [02]; 1997-393337 [36]; 1998-031704 [03]; 1998-129287 [12]; 1998-437043 [37]; 2001-396353 [42]; 2003-101718 [09]; 2003-615263 [58]; 2003-730043 [69]; 2003-730422 [69]
DNN N1998-271056 DNC C1998-107209
TI Vaccine compostions containing antigens in microspheres - useful for augmenting immune reactions across mucosal surfaces, especially against HIV-1.
DC A23 A96 B04 D16 P32
IN BIRX, D L; BURNETT, P R; REID, R H; SETTERSTROM, J A; VAN COTT, T C; VAN HAMONT, J E
PA (USSA) US SEC OF ARMY
CYC 1
PI US 5762965 A 19980609 (199830)* 6p A61K009-00
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ICS A61F013-00; A61K009-14; A61K009-66
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EXF EXAMINER'S FIELD OF SEARCH UPE: 19980803

NCL US 5762965 A 19980609
424/422; 424/426; 424/455; 424/486; 424/488; 424/499

CTCS CITATION COUNTERS

PNC.DI	0	Cited Patents Count (by inventor)
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IN: FOX, J G; KOHN, J B; LANGER, R S; NIEMI, S M
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IN: SETTERSTROM, J A; VAN HAMONT, J E; VAUGHN, W M
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PA: (GFFF-N) GFF GES FOERDERUNG IND ORIENTIERTEN FORS; (GFFF-N) GFF GES FOERDERUNG INDUSTRIEORIENTIERTEN; (CORR-I) CORRADIN G; (GAND-I) GANDER B; (MENY-I) MEN Y; (MERK-I) MERKLE H P; (THOM-I) THOMASIN C; (RMFD-N) RMF DICTAGENE SA
IN: CORRADIN, G; GANDER, B; MEN, Y; MERKLE, H P; THOMASIN, C

L142 ANSWER 6 OF 6 DPCI COPYRIGHT 2004 THOMSON DERWENT on STN
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DNC C1997-126303
TI Microcapsule compositions for burst-free, sustained release of active agents - comprising active agent and blend of uncapped and end-capped biodegradable poly(lactide/glycolide).
DC A23 A25 A96 B04 B07
IN FRIDEN, P; JEYANTHI, R; MCQUEEN, C E; REID, R H; ROBERTS, F D; SETTERSTROM, J A; VAN HAMONT, J F
PA (USSA) US SEC OF ARMY
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NZ 325561 A 19990629 (199931) A61K009-50
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     BR 9607752    A  19991130 (200014)
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ADT  WO 9726869 A1 WO 1996-US19440 19961118; AU 9714104 A AU 1997-14104
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     W WO 1996-US19440 19961118, JP 1997-526833 19961118; KR 98703429 A WO
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PRAI US 1996-590973   19960124
IC   ICM  A61K009-50; A61K009-52
     ICS  A61K038-08; A61K038-09; A61K038-10; A61K047-30
FS   CPI

CTCS CITATION COUNTERS
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CDP  CITED PATENTS       UPD: 19991105
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                    PA:  (BOEH) BOEHRINGER INGELHEIM; (BOEH) BOEHRINGER
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                         (BOEH) BOEHRINGER INGELHEIM GMBH
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                    PA:  (BOEH) BOEHRINGER INGELHEIM KG; (BOEH) BOEHRINGER
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                    IN:  BUCHHOLZ, B; ENTENMANN, G
                      A      DE 19513659   A  1996-413621/42
                    PA:  (BOEF) BOEHRINGER MANNHEIM GMBH;
                    IN:  KISSEL, T; KOLL, H; MORLOCK, M; WINTER, G
                      A      EP 52510      A  1982-44213E/22
                    PA:  (SYNT) SYNTEX USA INC
                    IN:  KENT, J S; LEWIS, D H; SANDERS, L M; TICE, T R
                      A      EP 463194     A  1992-008949/02
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PA: (BOEH) BOEHRINGER INGELHEIM; (BOEH) BOEHRINGER INGELHEIM GMBH
IN: BENDIX, D; STRICKER, H
A US 5410016 A 1995-205596/27
PA: (TEXA) UNIV TEXAS SYSTEM
IN: DESAI, N P; HILL, J L; HUBBELL, J A; PATHAK, C P; SAWHNEY, A S
WO 9726869 A 1997-393337/36
PA: (USSA) US SEC OF ARMY
IN: FRIDEN, P; JEYANTHI, R; MCQUEEN, C E; REID, R H; ROBERTS, F D; SETTERSTROM, J A; VAN, HAMONT J F
WO 9726869 A A US 4622244 A 1986-318526/48
PA: (UNIW) UNIV WASHINGTON
IN: LAPKA, G G; MASON, N S; THIES, C
A US 4623588 A 1986-325607/49
PA: (BIOT-N) BIOTEK INC
IN: NUCEFORA, W A; NUWAYSER, E S

REN LITERATURE CITATIONS UPR: 19991105

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	IN:	PELLET, M; ROUME, C	

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                E REID ROBERT/AU
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L112          11 S L109,L111
L113          23 S L110 NOT L112

     FILE 'HCAPLUS' ENTERED AT 10:41:32 ON 09 FEB 2004
L114          11 S L112 AND L10-L113
L115          23 S L113 AND L10-L114

     FILE 'HCAPLUS' ENTERED AT 10:43:18 ON 09 FEB 2004

     FILE 'WPIX' ENTERED AT 10:44:57 ON 09 FEB 2004
L116       33251 S (?LACTIC? OR ?LACTIDE? OR ?LACTATE?)/BIX
                 E LACTIC ACID/DCN
                 E E3+ALL
L117        6624 S E2 OR 0009/DRN
                 E LACTIC ACID/DCN
                 E E21+ALL
L118          64 S E2
L119         116 S E4
L120           7 S E6
L121          97 S E8
L122         114 S E10
L123       35091 S L17/BIX OR L116-L122
L124        9181 S (?GLYCOLIC? OR ?GLYCOLIDE? OR ?GLYCOLATE?)/BIX
                 E GLYCOLIC ACID/DCN
                 E E3+ALL
L125        2349 S E2 OR 0448/DRN
L126         101 S E10
L127        5254 S L19/BIX
L128        4652 S L123 AND L124-L127
L129       25928 S L11/BIX OR L12/BIX OR L13/BIX OR CH2CL2/BIX
                 E METHYLENE CHLORIDE/DCN
                 E E3+ALL
L130        6724 S E2 OR 0345/DRN
L131         318 S L128 AND L129,L130
L132         208 S L131 AND A61K009/IC,ICM,ICS,ICA,ICI
L133           9 S L131 AND A61K009-58/IC,ICM,ICS,ICA,ICI
L134         155 S L131 AND (B12-M11E OR C12-M11E OR B12-M10 OR C12-M10 OR B12-M
L135         135 S L131 AND (R051 OR R052)/M0,M1,M2,M3,M4,M5,M6
L136         118 S L131 AND (A61K009-48 OR A61K009-50 OR A61K009-51 OR A61K009-5
L137           3 S L133-L136 AND (ENDCAP? OR END CAP? OR UNCAP?)/BIX
L138          20 S L98/BIX OR L100/BIX
L139           0 S L133-L136 AND L138

     FILE 'WPIX' ENTERED AT 10:59:26 ON 09 FEB 2004

     FILE 'DPCI' ENTERED AT 11:04:35 ON 09 FEB 2004
L140           2 S (WO9832427 OR WO9726869 OR US65280978)/PN
                 E US95-446149/AP,PRN
L141           5 S E3
L142           6 S L140 OR L141

     FILE 'DPCI' ENTERED AT 11:05:40 ON 09 FEB 2004

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